

Volume I - Text
Volume II - Musical examples

Woodwind Instruments in France 1690-1750
Their Makers, Theoreticians, and Music

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ABSTRACT OF THESIS

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Title of Thesis Woodwind Instruments in France 1690-1750

Their Makers, Theoreticians, and Music

Woodwind instruments played an important and varied role in French music during the reign of Louis XIV. The years 1690-1750 were vital in the development of woodwind instrument making, the major advances took place in France, and the individual who was an instrument maker, theoretician, virtuoso, and composer was uniquely typical of this period.

The recorder and musette were the fashionable instruments of Parisian society. Important people had lessons on them, and professionals featured them in pastoral ballets. The Hautbois et Musettes du Poitou were included in the Royal Band. These instrumental traditions gave French woodwind making an unparalleled stimulus towards new inventions and remodelling the old consort and band instruments. The result: the emergence of the classical woodwind types.

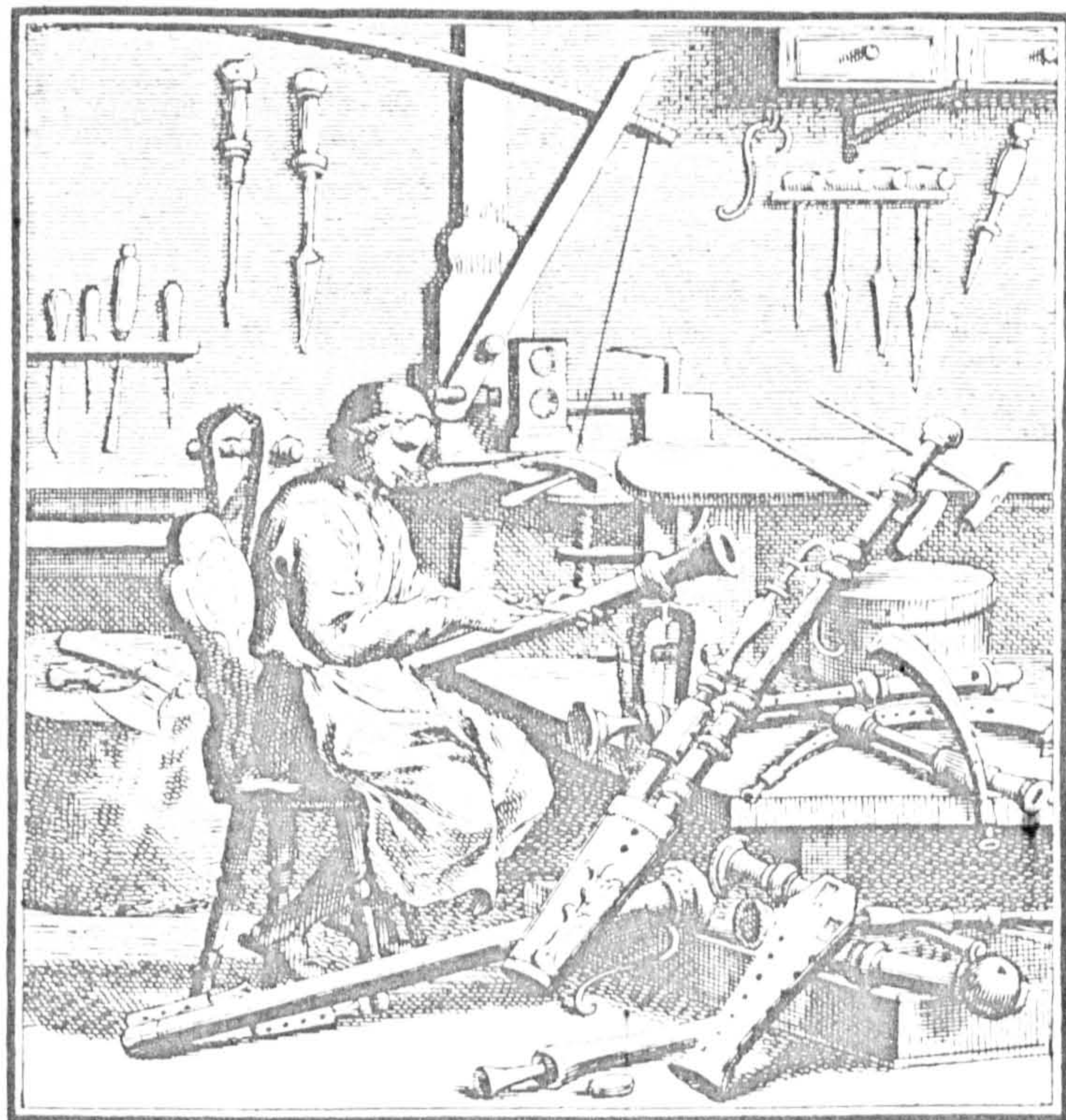
The opening Chapters of Volume I deal with various aspects of woodwind production in and around Paris c. 1700. Chapter 1 describes the birth of the woodwind industry in France at this time, and quotes from original documents (not previously published in English) on the formation of instrument makers' unions. Chapter 2 recounts the achievements of French makers in instrument construction and design. Although relying to some extent on modern sources, this Chapter collates widely dispersed information unavailable in any other single source. Material from an instrument maker's manual is translated and commented on in Chapter 3, and in the same Chapter the professional approach is contrasted with Jacques Hotteterre's instructions for the amateur on the maintenance of a musette. Chapter 4 takes principles of wind instrument tuning suggested by Theo Wyatt and J.C. Nederveen and applies them to instruments of the Hotteterre era in an analysis of early fingering charts.

Chapters 5 to 7 summarise and comment on interpretive information given in French woodwind tutors of the period 1690-1750. Fingering charts are compared in an extension of D. Lasocki's work on tabulating fingerings from all early tutors. Tongueing patterns are discussed in relation to (i) rhythmic alteration, and (ii) the performance of notes inégales in wind music. The section on ornamentation assembles all early French woodwind source material, and attempts to distinguish specifically woodwind performance practices. Chapter 7 presents three new fingering charts for the one-keyed transverse flute, two or three-keyed oboe, and the musette.

An assessment of the music in which the instrument making techniques and theorising discussed in previous Chapters were involved is given in Chapters 8 to 10. A broad survey of composers' output for woodwinds during the period 1690-1750 is attempted in Chapter 8, and this includes previously uncollated information on Court musical organisations and productions from the writings of Carlez, Thoinan, Mauger, Cucuel, Brenet, and others. Chapter 9 discusses orchestral scoring for winds, illustrated by transcriptions from original Mss. The development of wind scoring is traced from the sedate Mersenne, through the instrumental transformations of the Hotteterre group c. 1700, to the galant twitterings of the flutes in Rameau's 'Ramage des oiseaux' from La Temple de la Gloire. Chapter 10 deals with a most important aspect of the French wind tradition established by

Freillon-Poncein, Hotteterre, and Boismortier - the beginnings of a French wind concerto tradition. As illustration, Boismortier's Concerto for five flutes op. 15, No. 1 has been newly transcribed from the original edition.

Volume II presents a short anthology of unpublished French woodwind music written c. 1700. Introductory notes accompany each section, and a detailed Textual Commentary concludes the Volume. At least two composers anticipated particular aspects of Jacques Hotteterre's compositions for woodwinds, and the first four extracts in Volume II juxtapose the music of Hotteterre with that of his models: Charles Borjon's musette music and Freillon-Poncein's unaccompanied solo Preludes for woodwinds. The musical examples from the second part of Jacques Hotteterre's Méthode pour la Musette were studiously ornamented for an amateur public, and most were suitable for any melodic instrument.



Christophe Weigél, Nürnberg 1698, 'The Woodwind Maker'

Weigél shows a variety of woodwinds including bassoons, recorders, and cornetts piled around the maker who is fashioning the top joint of a bassoon. Note the accurate (but in perspective over-large) drawings of tools hanging on the wall behind.

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Preface

Woodwind instruments played an important and varied role in French music during the reign of Louis XIV. The years 1690-1750 were vital in the development of woodwind instrument making, the major advances took place in France, and the individual who was an instrument maker, theoretician, virtuoso, and composer was uniquely typical of this period.

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For help in securing material, I am grateful to many librarians, notably Mr Michael Anderson (Edinburgh University), Mr Will-

iam Lichtenwanger (Washington, D.C.), Madame H. de Chambure (Paris Conservatoire) and Mr William Tait (Perth). Mr William Bannerman and Mr John Davidson gave helpful advice on translations of early French texts. The correspondence of Mr Edgar Hunt, Mr David Lasocki, Mr R. Morley Pegge, and Mr Alan Davis, and my personal contact with Mr Lyndesay Langwill (whom I would specially like to thank for having trustingly lent me his irreplacable volumes of Carlez, Thoinan, Mauger, and Pontécoulant), Mr Graham Melville-Mason, and Mr Frans Brüggen have stimulated and enriched my interest in early French woodwinds. The help and encouragement of Dr Peter Williams has been invaluable in completing this study.

David Jenkins
Edinburgh, 1973

(i) American Acoustical Society pitch notation, i.e. C_0 C_1 C_2 C_3 C_4 C_5 C_6 C_7 C_8 , is used throughout. C_4 is middle C.

(ii) All instruction tutors are given their 'Warner numbers'.

See Thomas Warner, An Annotated Bibliography of Woodwind Instruction Books, 1600-1830 (Detroit, 1967).

(iii) In descriptions of fingering charts closed holes are represented by the symbols 0 (thumb hole), 1 2 3 (first, second, third and fourth fingers of the left hand), and 4 5 6 7 (first, second, third and fourth fingers of the right hand). '-' represents a hole left open. A half-holing is indicated by an oblique stroke through a number, e.g. 2̇.

(iv) French woodwind tutors make no mention of the pitch standard(s) current from 1690-1750, and contemporary instruments remain our only guide to the pitches used. Tief Cammerthon ($A_4 = 409$ Hz.) was the Court Chamber Pitch of Pascal Taskin.¹ It was associated with and may well even have originated with the exceptionally fine woodwinds made in France by the Hotteterre circle. Quantz commented favourably on its use.

[He did] not wish to argue for the very low French chamber pitch, although it is the most advantageous for the transverse flute, the oboe, the bassoon, and some other instruments. The wind instruments ... owe their existence to the low pitch.²

1 Thomas, W. R. and Rhodes, J. J. K. 'Schlick, Praetorius and the history of organ pitch' The Organ Yearbook Vol. 2 (Amsterdam, 1971) pp. 58-76

2 Quantz, J. J. Versuch (Berlin, 1752) Chapter 17, Paragraphs 6-7

(Full titles of footnote references given in Bibliography)

Chapter 1

The beginnings of a woodwind industry in France.

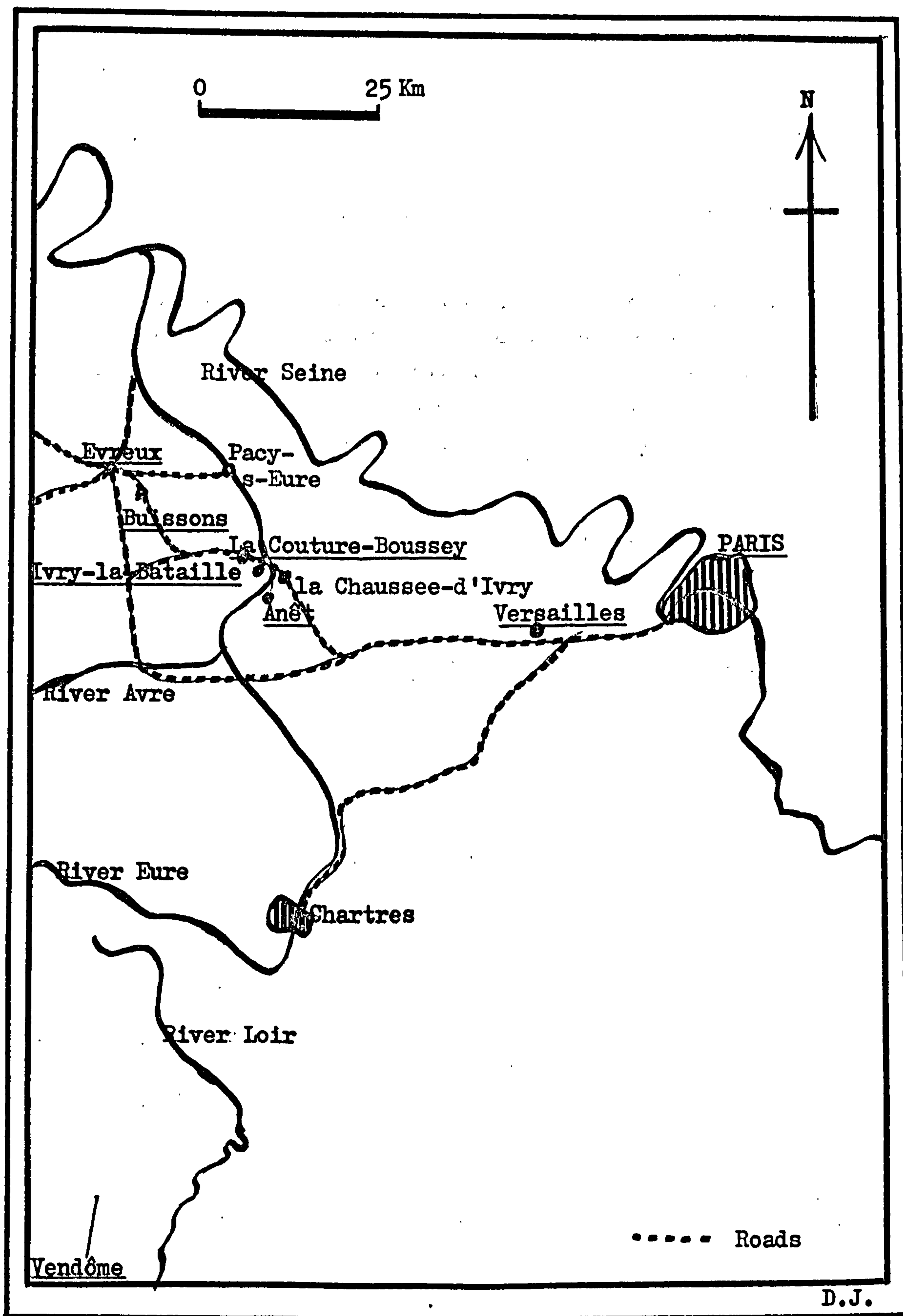
Woodwind instruments were probably first made commercially in France at Poitou (see map of 17th and 18th cent. woodwind towns West of Paris, p. 2). Croutelle also was well known for the skill of its wood-turners; they made an infinite number of everyday objects such as gun-butts, bed-posts, and candle sticks, as well as musical instruments including cornets à bouquins [goat horns], hautbois, cornemuses, chèvres-sourdes [kid bagpipes], flageolets, piffres et flustes.¹ The origins of craft wood-turning in the valleys of the Rivers Eure and Loire are obscure, but the folk legends recounting its beginnings are numerous. According to one legend a hawker of pipes and guns settled in La Couture and raised a family; they are said to have started the practice of wood-turning. According to another, many musical instruments were left behind by soldiers de la Ligne et de Henri IV after the battle of Ivry in 1590, and these relics are supposed to have inspired the residents of La Couture to apply their skill as wood-turners in the construction of similar instruments.

The woodwind industry can be traced with certainty back to before 1547 since a passage in the contemporary Baliverneries mentions a sonneur de coute [a player of flutes made at Croutelle]. The revocation of the Edict of Nantes caused the making of woodwind instruments to cease at Croutelle.² Musettes and oboes of Poitou, on the other hand, at least in name still formed part of the musique du roi

1 Coutant, J. and P. Oeuvres (Poitiers, 1628) page reference unavailable

2 Desaiivre, L. Les finesses de Croutelle (Niort, 1891) page ref. unavailable

17th and 18th century woodwind towns West of Paris



24 Km



Towns mentioned in the text are underlined

footnotes to p. 3

- 1 17th century French instrument-makers' 'unions' had more in common with the structure and aims of medieval guilds than with those of 19th and 20th century trades unions; they were more concerned with preserving high standards of work and the internal organisation of their profession than with fighting for better pay and conditions for their members.
- 2 Extract from 'Ordonnances on trades and professions advocated by the Provost of Paris, 1270 - 1300' reproduced by G. Depping in his Registre des métiers (Paris, 1837), and quoted by Pierre, C. in Les Facteurs (Paris, 1893) pp. 8-9.

in 1722. Towards the end of the 17th century the Duke of Vendôme held many social functions at Anet, near La Couture. The Hotteterres were then manufacturing woodwinds, and flautists or oboists from Paris who played at Anet may have spread news of the rapidly growing Hotteterre reputation. The industry of instrument-making spread outwards from La Couture to the neighbouring villages of Ivry-la-Bataille and Garennes, a site where water power was utilised to drive machinery.

Establishment of an industrial union structure.

In the 17th cent. instrument-makers belonged to several unions, their affiliation depending on the material and the tools with which they worked. Flute-makers belonged to the union of chair-leg manufacturers; stringed instrument-makers belonged to the union of chess-board manufacturers! Individuals joined these diverse unions to find in their corporate strength a measure of protection against industrial oppression. To make this protection more effective members endowed their brotherhoods with religious overtones; unions were formed with their own rules, banners, and patrons which they placed under the umbrella of the Church. She offered protection and financial assistance to members of the union in need, and looked favourably on the development of music in its broadest sense.

In 1297 the profession of making brass instruments was established. In August of that year Henri l'Escot, Guillaume d'Amiens, and Roger L'Anglais appeared before the Provost of Paris to point out that they alone in the entire city of Paris maintained workshops where trumpets were made.² They asked that the exercise of the profession be governed by the statutes of the forcetiers [wire-pullers], a request which was granted by the Provost. Saint Louis, in an effort to encourage the arts and industry, confirmed the statutes of the brotherhood and appended several articles. These advocated that most

distinguished masters should undertake a guiding rôle over the younger and less skilled members. The king wished the latter to be apprenticed for several years, and that they should prove their ability before being admitted as full members to the union. Membership of these unions was not yet exclusive; they were considered as craft schools open to all-comers. In 1382 Charles VI, tired of the endless demands of various unions and the vast quantity of legal wrangling to which these demands gave rise, abolished all jurandes [sworn memberships] and masterships, but the need for money to be raised by taxation caused them to be re-established in 1411. Henri II declared in patent letters of 1554 that hospital administrators could give certificates of mastership (without a masterpiece or payment being submitted) to anyone who had followed a trade or profession for 6 years, provided he had been a member of the institution. The unions wished to resist this infiltration of their ranks by orphans, and a second patent letter appeared in 1578 permitting all those who taught the orphans to buy all necessary materials as though they were articulated masters and to employ an apprentice to help them. The impoverished public purse did not delay in profiting from these institutions whose aims were so praiseworthy. Soon the unions of arts and crafts were only considered as a means of obtaining taxation or of borrowing money through the creation of a multitude of offices, which were as tiresome for the unions to administer as they were profitless for the State.

In 1581 it was decreed that all instrument-merchants, artisans, and tradesmen should form a professional body. At first no useful purpose could be seen to be served by the passing of this edict, but another edict of 1583 declared that the right to work was granted as a royal prerogative. It laid down (i) how one had to work, (ii) duration of apprenticeships, (iii) the form and standard of masterpieces, (iv) the methods for internal administration of the different bodies

which were divided and ruled by privileges, (v) the form of reception into the union, and (vi) the amounts to be paid by aspiring members. In order to compensate the unions for the imposition of new taxes, permission was granted for them to limit their membership numbers and monopolies were exercised. The government took further advantage of the situation by promoting the sale of certificates of mastership, without which the titularies had neither proof of their accomplishments nor the right to take on apprentices. It was due to this decadence in the art of instrument-manufacture that Charles IX saw fit to have his violins made in Italy! When French makers witnessed the arrival of the 24 violins which the king had had made by the Amatis, despite the fact that there were capable makers such as Bocquay, Pierret, and Despons in France, they recognised their inferiority and constituted themselves into a union. Their union statutes were approved in patent letters from Henry IV dated July, 1599.*

Letters for the creation of the craft of musical instrument-maker, setting it up into a great mastership, with its privileges and statutes.

Henry, by the grace of God, King of France and Navarre, to all present and to come, greetings!

By our edict of establishment and general regulation made to cover all arts, trades, and crafts, whether sworn or unsworn, of this kingdom, of the month of April 1597, we, among other things, by the fourth of the latter, ordained that all merchants and artisans of the towns of this kingdom, whether or not sworn and established into a guild mastership in the said towns, should pay us the sum which they were taxed for this purpose in our Council with regard to the quality of the said craft to be their sworn mastery; to which end our well-beloved and faithful instrument-makers of our said town of Paris, asking to enjoy the said benefit and privilege, paid us the sum to the Commissioner for General Receipts of the said monies, the sum to which they were taxed in our Council as is apparent from the receipts of

* Translated and paraphrased by the author.

1 Archive nationale, Vol. des Ordonnances de Henri IV X^{1a} 8640 fo.68
and Receuil d'ordonnances (Paris, 1680) Bib. nat. Ms. 8095
p.86 ff

the said Commissioner attached thereto with the said edict under the counterseal of our Chancellery, and very humbly begged and besought us to issue to them our letters necessary for this; we wish it to be known that we, in a desire to help them in this matter and to set up their craft from this day forward in good order and to avoid those abuses which had been committed in the past in it, that we have made, created, set up, and established the said art and craft of Master Musical Instrument-Maker; we make, create, set up, and establish sworn members of the craft; we wish and desire that the said master musical instrument-makers of Paris should enjoy the privileges, statutes and ordinances which follow:

ARTICLE 1 That none shall be admitted and received to keep a shop of musical instruments in our town of Paris without having been received by two sworn masters currently in office, which sworn masters will keep papers and registers of all those who are received to the said craft of musical instrument-maker, and after duly completing a masterpiece and experience, and giving proof of their capacity, good life and morals, and the time of apprenticeship carried out in our good city of Paris, they will be received by the said sworn masters, and, to this end, will swear the oath required and accustomed before our Procurator at the Châtelet, and registered at his office, and to be tried there when the need arises after having paid the tax required.

ART. 2 Sworn members will be elected for a period of 2 years, and will be proposed and elected by a majority decision of fellow-members of the said profession.

ART. 3 It is strictly forbidden for any person, from whatever profession, kind or condition to (i) own/rent a musical instrument shop, (ii) sell, or (iii) buy for resale and to debit profit fully, or in part, however large or small, if they are not qualified masters of the said profession and former apprentices in Paris; thus they may sell them to sworn masters of the profession and may not do otherwise at risk of confiscation of the said instruments should they be found on shop premises or offered for sale by persons other than the said masters of the trade.

ART. 4 Any apprentice of the said profession will not be employed unless he has served for 6 whole years with one of the masters of the trade, and, 8 days after completion of apprenticeship, the master of the apprentice must take the notice of completion to be registered in order to avoid abuses of the system which may be committed. Apprenticed sons of masters of the said profession may become sworn masters of the said profession by being judged fit and without in all cases having to complete a masterpiece.

ART. 5 It is forbidden for any sworn member or master to retain more than one apprentice at one time. The latter, having completed 4 years of his apprenticeship and there remaining only two years to complete the said 6 years, the said sworn members or masters may take on in this case (and in no other) another apprentice.

ART. 6 In the case of any of the said sworn members or

masters having opened two or more shops, these will be closed forthwith without delay, notwithstanding what they may allege in their defence.

ART. 7 In the event of the death of one of the masters of the said profession his widow would retain the shop. It would also be legal for her to hire a worker who had been apprenticed in our town of Paris, and, should she remarry, she would be entirely deprived of the said agreement.

ART. 8 No one may work at the said profession at court in our city of Paris if he has not completed an apprenticeship in our city of Paris and also if he has not been made a sworn member as described in ART. 1.

ART. 9 It is forbidden on pain of confiscation and arbitrary fine for any of the said sworn members, masters, or journeymen of the said profession to carry, or cause to be carried, by no matter whom, any musical instrument for sale or resale in the streets of the said city.

ART. 10 For the attention of foreign merchants or others of this kingdom who carry merchandise, be they musical instruments, raw wood, or other materials relevant to the said profession, this merchandise may not be bought in bulk by any sworn member or master without giving notice to the community; to this end, the merchandise will be divided amongst them, and in the case of any member of the body who has bought the said foreign merchandise without warning the community, the said merchandise will be confiscated, and the defaulter punished by the imposition of such a fine as is deemed reasonable.

ART. 11 To avoid the abuses which can be committed against the profession, the sworn members will not receive or admit into the said mastery anyone who has not been apprenticed, experienced or recognised by the masters as being capable of exercising his talents as outlined above and also provided with letters of qualification of the king, of princes, or of princesses.

ART. 12 Sworn masters will make all sorts of cases for the said instruments and also adorn the instruments with all kinds of precious metalwork, marquetry, and other necessities, which can be made by them according to their own designs and without being prevented from so doing by anyone, no matter whom.

ART. 13 Journeymen of the said profession who wish to become masters thereof will be received when they are of adequate standard, after having been apprenticed in the said city of Paris for the duration stipulated above, having paid the dues of the king and those of the sworn masters, and after having taken the oath before the Procurator of the King.

ART. 14 It will be deemed essential for all masters of the said profession to avoid, on penalty of arbitrary fine, all malpractices which may be committed in the profession.

Paris, July, 1599, 10th year of the reign of Henry IV.

Registered in the Black Register, nine persons being in the Chamber of the King's Provost, Lord of the Châtelet, 30th November, 1599.

These regulations scarcely differed from those of other guild masteries. There were no subsequent modifications to them, but for fear of some upset the instrument makers saw fit to have them renewed 80 years later, and their relevance to the period 1690 - 1750 as a legal foundation for the operation of a woodwind industry can be seen. The instrument-makers sought and obtained from Louis XIV letters of confirmation.¹

Confirmation of the statutes of master musical instrument-makers.

Louis, by the grace of God, King of France and Navarre, to all present and to come, greetings!

Our well-beloved master musical instrument-makers of our good city of Paris have pointed out to us that the late King Henry the Great, our very honoured lord and ancestor, in complying with the edicts and regulations in the matter of the merchant arts, artisans, and masters, agreed, approved, confirmed and authorised the statutes and regulations made by their predecessors in the matter of their art and craft by his patent letters of the month of July, 1599, registered by the Provost of Paris on the 20th November of that year, which the said dealers in the same way as their predecessors keep and observe without violation and any trouble. But, in that they have not been confirmed and authorised by the late King our very honoured father, whom God absolve, nor by ourselves since our coming to the throne, the said dealers, fearing that one might claim the lapse of validity of the letters of confirmation when there would seem to be some need to act against those who were interfering with the said regulations, or wishing to enter the said craft without any mastery, formal reception, experience, or qualification to perfect their works as is required by the said statutes and regulations. This is why they are obliged to have recourse to us and very humbly beseech us to issue to them our said letters necessary for this. To which, inclining favourably from our especial grace, full power and royal authority, we have agreed, approved, confirmed and authorised, and by these present letters signed by our hand we agree, approve, confirm and authorise the said statutes and ordinances of the said art and craft of instrument-makers of the said craft of music, we wish and desire that the said dealers and their successors, masters of the said craft, should enjoy them according to their form and terms. Following the said letters of confirmation of the month of July, 1599, and the registration extract of the 20th November of the said year attached thereto under the counterseal of our Chancellery, just as they have well and duly enjoyed, enjoy, and continue to enjoy at the present, provided that no contrary order or regulation has intervened. Therefore we command our well-beloved and faithful counsellors of our Parliament Court of Paris, the Provost of the said place or his lieutenant, that they should register these present letters of confirmation, that the said dealers and their successors may enjoy and have the benefit of their contents as

1 Archives nationales, Volume of Ordonances of Louis XIV.

X^{1a} 8675, p. 86

masters of the said art and craft, fully, peacefully, and perpetually, ceasing, and thereby causing to cease, all difficulties and hindrances; for such is our pleasure, and in order that this may be a settled and stable situation for all time, we have had our seal placed on these present letters.

Signed by the King, April, 1679, and registered at Parliament Court in Paris on the 6th September, 1680.

The instrument-makers' union requested that all makers be subject to the jurisdiction of its sworn members, and that all aspiring makers be obliged to undertake apprenticeships. This was approved in an edict of 3rd March, 1691, which ordered that all makers (including organ-builders and flute and oboe-makers) should be subject to the authority of one union; but that all were unwilling to submit to the authority of the union was evident from a request for this matter to be dealt with by the King's Council dated 16th November, 1692.

From the date of the edict of 1673, which added to existing unions others then unknown, until 1720, industry was encumbered by an increasing host of charges and laws. The wars which preceded the peace of ~~Ryswick~~ ^{Ryswick} and the Succession saw the numbers of offices created increase yet again. These offices were sold by the government to the unions, which, being very poor, were authorised to borrow money for the purposes of payment of dues. Besides paying for the rights of mastership, one had also to pay the rights for the confirmation of mastery and for the rights of succession for one's children to follow into the mastery. The state created masterships for each union. In 1637 she provided an additional four in the union of players and makers of instruments. On the birth of the Dauphin in 1645 a further two masterships were added.

Legal wrangles

Many legal processes governing the interaction of the unions took place for fear of encroachment upon each other's legal rights which were often ill-defined in the original patent letters. In 1730 the

1 Legal cases (pp. 9-15) quoted in Purrie, C. Les Facteurs (Paris, 1893) pp. 33-46.

sworn members of the Union of Woodwind Instrument-Makers of Paris seized in vindication of their rights three musette sacks on the premises of a M. Collard, declaring that only they had the right to construct such items. The Provost of Paris gave judgement in favour of the instrument-makers on 20th July, 1731.

A similar legal wrangle took place over a seizure of goods at a shoemaker's shop in 1741. Blanchet and Villars, violin-makers and sworn officers of the Society of Musical Instrument-Makers, were named plaintiffs on a writ issued by Lambert on 5th May, 1741. The tabletiers [stringed instrument-makers allied to the union of chess-board manufacturers] had a seizure carried out at the premises of a M. Lefèvre, cobbler. The plaintiffs wished the seizure declared valid and the items confiscated to be credited to their profits. These included 9 flutes, 9 fifes, and 4 flageolets. They also wished to sever the association between stringed instrument-makers and the tabletiers, and consequently to forbid them to make musical instruments. The tabletiers were forced to pay damages and expenses on the grounds of a declaration of 23rd June, 1740, that they had no further intention of making musical instruments. The musical instrument-makers wished their sole right to make instruments upheld. They wanted Lefèvre also declared liable to the payment of damages and expenses.

At the hearing of the case neither Lefèvre nor his agent appeared. The tabletiers and their lawyers did appear and reaffirmed their declaration that they no longer wished to make musical instruments. The court upheld for the violin-makers (as representatives of the Society of Musical Instrument-Makers) the sole right to make musical instruments. The goods confiscated, the tabletiers were free to go. Lefèvre was declared liable for expenses. The tabletiers, familiar with the subtleties of legal chicanery, consented to allow the musical

instrument-makers to finish and perfect instruments of which they had first of all turned the outer part. Failing in this new infiltration attempt, they claimed the right to ornament the exterior of instruments with ivory and ebony.

Despite numerous judgements and condemnations, certain tabletiers persisted in making musical instruments. At the request of the instrument-makers, several seizures were carried out at the business premises of Philippe de Lavigne who repeatedly refused to stop trespassing on their profession. He was condemned for the first time in 1723 and again (on the grounds of a first seizure of 3 bagpipes, 1 'cello, and 1 harpsichord carried out on 21st July, 1740, and of a second seizure of 8 bagpipes, 2 violins, 1 bass recorder, 1 treble recorder and 55 tools carried out 5 days later) by a sentence from the police court dated 1st September, 1741. There is no evidence of what penalties had been imposed on de Lavigne for previous convictions, but the one which resulted from the seizure of 1740 was too benign to prevent the recurrence of the abuses it was intended to curb. He had to pay a mere 20 livres damages plus expenses, and the court ordered the instrument-makers to return Lavigne's tools, a demand against which they appealed with good reason!

The inventory of papers relevant to the corporations and guilds of Paris which were transported from the Town Hall to the General Registry in execution of the decree of 3rd October, 1789 reveals several similar cases by listing various documents found in the archives of the Society of Instrument-Makers. These documents have not been investigated, but it has been possible to analyse the 32 judgements of the Commission of Scrutiny of Accounts. It would be of interest to know the grounds of the objections presented by the parties in their submissions, just as it is of interest to know their observations

about projected new statutes and investment of funds. The General Registry papers contain many details about the suits raised by opposing guilds and they may contain answers to strange problems. For example, while it is easy to deduce that it was because of the paintings which enriched the beautiful harps of Naderman that artists protested through their guilds, it is more difficult to guess what was the nature of the encroachment of the haberdashers on the musical profession!

The instrument-makers not only had to defend themselves against the hostile activities of other guilds but also against dissension which sometimes broke out within their own community. One interesting judgement gives details about typical customs of the community, and calls into question the good fraternity of certain of its members.

Gilles Lot, the son-in-law and journeyman of the widow Le Clerc, whose husband had been a qualified master instrument-maker, was the plaintiff against Charles Bizet, Thomas Lot, Paul Villars, Denis Vincent, and Jacques Lusse. They opposed two decisions of the Society dated 3rd March, 1748 and 1st September, 1751. The second of these allowed for the admission of one unqualified member to the Society per year, as had (unofficially) been customary for some years. The plaintiff, with the approval of the entire Society, had applied to be received as a master. His apprenticeship was completed, having worked for different masters in Paris, married the daughter of a master, and he was then working daily at the craft. The five opposing parties were the only wind instrument makers in the Society, and they claimed vainly that Gilles had neither the skill nor the qualifications required for entry.

The report of the judgement states that one must note that the Society is divided according to the four skills represented, viz. violin-makers, wind instrument-makers, organ-builders, and harpsichord-makers. The parties opposing the reception of Gilles seem to be the only wind instrument-makers in Paris at the time who were also members of the union, and it was in their workshops that he had spent his apprenticeship. He had been an apprentice for 5 years with his cousin, Thomas Lot, 1 year a journeyman with Bizet, and then he had gone to work with Le Clerc, whose daughter he had subsequently married. Since the death of Le Clerc, Gilles Lot's efforts had kept the business functioning.

The defendants claimed that he was not articulated (his cousin, Thomas, had previously not been articulated) and when Thomas was in office in the Society he had received into the Society other unqualified instrument-makers. The five made the following claims

about their own qualifications: (i) Bizet had been received as a master in 1716, having supposedly completed an apprenticeship, (ii) Villars had been apprenticed to Bizet, (iii) Vincent had been articled, and (iv) Thomas Lot had married the daughter of a master instrument-maker.

In truth, according to the report, Bizet had never been articled, although he had done his apprenticeship. Villars had to get a letter from the King to permit his reception because his apprenticeship had been with Bizet, who had not been officially articled. Vincent had been apprenticed, but his articles were lost, and he could remember neither the date nor (curiously enough) the name of the master with whom he had worked. No mention was made of Lusse's qualifications, so presumably he was received without any. Thomas Lot had been received officially because he had married the daughter of a master.

It was concluded that Gilles Lot, the plaintiff, was as well qualified as any to be received into the mastery. In simple terms the five defendants feared his competition. Realising this, Gilles challenged them to do his masterpiece, and he would withdraw his claim for acceptance as a master if any of them could surpass his efforts.

The case of Gilles Lot had no connection with the opposition which the five defendants had to the decisions regarding the admission of unqualified members, decisions which had presumably been taken after due consideration as being in the corporate interests of the Society. A M. Micaut had been received as an unqualified member on 16th August, 1751, and the decision of 1st September of that year had been a consequence of this. Why then should they refuse Gilles Lot admission if it were not a case of professional jealousy? Thomas Lot had been a sworn member currently in office at the time of the earlier decision on 3rd March, 1748; he claimed that he had received only one unqualified member during his period of office, and had refused entry to one other applicant afterwards and two others earlier. It was obviously not because of lack of qualification that they were refused, since the register of the Society both before and after this period shows that unqualified members were regularly received at the rate of one annually. The reason for refusing entry to these others seems to have been that they had offered to pay the Society only 400 livres and not the 650 demanded by the decisions of the Society. Gilles Lot, however, had offered to pay the full 650 livres to cover all Society and Government fees, so there was no technical difficulty hindering his admission to the Society. Judgement was pronounced in favour of Gilles Lot's application.

Without over-emphasising the strange attitude of the five individuals towards a prospective colleague, against whom they had no valid reason to complain, or the scant regard for correct professional conduct which they showed in objecting to the majority decision of the Society by bringing a case against it, it is obvious that the authority

of the union was precarious. It was recognised that the union could not function without infringing the formal prescriptions of the statutes, and it required of its members the homologation of the legal deviations which it had allowed itself. Unqualified masters, i.e. masters without articles of apprenticeship and who had not done a masterpiece or had any experience, were received into the Society in violation of Articles 1, 3, 4, and 8. Although limited to one per year, these exemptions introduced professional dilution into the Society. There were at least 30 documents relating to the formal reception of unqualified masters in the papers inventoried in 1790.

It was ~~also~~ in violation of Art. 5 of the ruling of 1749 (see p. 6) that concessions were made about the fees required for the formal reception of a master. In the text of the judgement it mentioned that these fees were 650 livres in 1751, but that sometimes they accepted less. The control commission was forced to contribute 450 livres towards the sum of 2,550 livres received by Hensch from 1747-8 due in respect of fees for the formal reception of 6 new members. This indicates that entrance fees must have been 500 livres, and if some candidates were refused entry it was only because the sums of 400 livres which they offered were too far below the recognised fees.

The judgement also makes it clear that it was customary to exhibit masterpieces and that the wind instrument makers made only 5 sorts of instruments, viz. flageolets, flutes, oboes, clarinets, and bassoons.

Union administration was very elaborate. The grades of the internal promotion structure of the Society of Instrument-Makers were multifariously subdivided, and admission to the union was achieved through the equivalent of a masonic initiation into the brotherhood of the Society. One could not be admitted as a sworn member [juré] without previously having been an ancien, and the ancien must have served as

maitre moderne for a stipulated number of years. Distinctions were clearly defined between the following grades: great and small jurandes, the syndicat, the gardes simples, and the grandes gardes. Progression from each of these status grades offered new privileges to extend those already enjoyed, but the key to self-improvement was finance - all grades had to be bought.

During the 18th cent. the French state had to intervene (in its own interests) in the business of all guilds and societies, and it supervised the proper administration of them. Among other measures introduced was fiscal control of the accounts. By decrees of the Council of 3rd March, 1716, 16th May, 1716, and 24th June, 1747, each guild was obliged to submit to the Procurator General, Berryer, a statement of their annual income, debts, and expenses. When these documents had been examined, each guild received its own private ruling which specified the powers and responsibilities of sworn members relative to the administration of the common funds. The rôle of the sworn members in the payment of dues was laid down, as were the rules to be observed for seizures, law suits, admissible expenses, etc. The ruling for the Society of Instrument-Makers was dated 23rd June, 1749.¹ There were 18 articles:

ARTICLE 1 Accounting books are to be regularly kept, and the article prescribes the methods to be used.

ART. 2 If the retiring Financial Secretary of the Society is in debt to the Society, his successor must seek repayment and be able to prove that he has sought this repayment, or, if he fails to recover the debts, he will then be held personally responsible.

ART. 3 The product of confiscations and fines is to be paid into the community's funds. In the case of a fine levied on someone who is found to be insolvent, an entry must be made accordingly. The king may also order fines to be quashed.

ART. 4 The accounts of the communauté and the confrairie are to be kept separate.

ART. 5 Certificates of apprenticeship or of formal reception into the guild are to be delivered only after payment of the dues. No credit is to be given. No reduced rates.

¹ Archives nationales V⁷, 420

ART. 6 Personal accounts of the Financial Secretary are to be kept strictly separate from those of the community.

ART. 7 A yearly roll will be prepared in three categories. The first roll will list masters and widows of masters currently in business and who are in a financial position to pay the dues. The second will list the sons of masters working either with their father or with another master as a shop-assistant. The third roll will list those reputedly unable to pay, or those in whose case a reduction might seem appropriate. The Financial Secretary is to keep note of the product of the first roll in addition to any product which has been recovered from the third roll.

ART. 8 No loans, even for repayment of dues, are to be raised without the written permission of the Lieutenant General of Police of Paris.

ART. 9 Expenses for seizure of goods may only be claimed if the official reports and receipts are attached.

ART. 10 The community may appeal against the judgement of the Chatelet only if all the members have been convoked and have agreed to this action.

ART. 11 Accounts payable to the Procurator and other legal officers will be passed for payment only on production of the relevant papers. If no official receipt is given (as, for example, in the case of a consultation with a lawyer) a certificate must be attached signed by all the sworn members and by 6 senior members of the community.

ART. 12 This article lays down in detail which office expenses are allowable up to a maximum of 272 livres (1 livre = 10p app.).

ART. 13 This article reinforces Article 5. No commission fees may be claimed by sworn members relative to the induction of new members into the Society.

ART. 14 Carriages are an allowable expense only if a certificate stating that the case was urgent is attached and signed as in Article 11. A maximum of 24 livres in any one year was allowed.

ART. 15 The Financial Secretary demitting office must produce a statement of accounts at the end of his period of office to be audited within three months, presented to the Fiscal within one month, and then kept by the Society for future reference.

ART. 16 If there is a book-keeping error in favour of the retiring Financial Secretary this may only be returned after the auditing of the accounts.

ART. 17 If a Financial Secretary is appointed who is unable to perform the book-keeping in the prescribed manner, he may be allowed to spend 24 livres per year on secretarial assistance.

ART. 18 His Majesty enjoins the commissioners of the office established for the liquidation of debts of guilds and societies

and the auditing of their accounts and the Lieutenant General of Police to co-operate in the legal execution of the present regulation which will be registered with the commission and transcribed on the register of the Society of Musical Instrument-Makers to be executed according to its form and contents.

The regulation was not particular in its application to the Society of Musical Instrument-Makers; its dispositions reproduced more or less those of the decree of the Council dated 4th May, 1749, concerning the administration of common funds of societies and the rendering of their accounts. The main difference between this decree and that which applied to the Society of Musical Instrument-Makers lay in the maximum figure for expenses authorised by Articles 12, 14, and 17, which was significantly lower in the case of instrument-makers than in the cases of other societies and unions.

Apprenticeships were subject to well defined rules and punishments for disobedience. Independent of the rights which masters held over their apprentices, the latter had to be registered at the office of the union. The registration fees paid, the apprentice still had to pay for the rights of use of sealing wax for ring impressions, of religious services, of welcome, and of use of the secretarial services of the union. He was submitted throughout his period of apprenticeship to an annual fee for re-registration.

Sons of masters were exempted from doing apprenticeships; they became compagnons de droit [journeymen by birth] until the age of 17 if they worked with their father. All 'foreigners', i.e. all who were not born within the specific town or locality in which they wished to work, had to undertake an apprenticeship in that town if they were to be employed there. Thus, the son of an instrument-maker from Rouen was considered as a stranger to the body of makers of Paris, and vice versa. Having completed an apprenticeship in one town, it was necessary to recommence the apprenticeship if one wanted to continue practising in another.

additional footnote to p. 18.

2. Traditionally, the triech guild of instrumental performers (Savit-Julien) and the guild of instrument makers retained their separate identity, but on the basis of this evidence from Pontéconlant it seems that Dumanoir II may have held the leadership of both guilds. Perhaps the link between players and makers was more positive than has hitherto been thought.

A strange refusal of membership drew the government's attention to this anomaly. In 1755 a document of the Council attempted the formation of a brotherhood of all sworn members of the same profession, but excepted from the general statement of intent were the major cities of Paris, Bordeaux, Lyon, Lille, Rouen, and Marseille. Thus a journeyman remained a 'foreigner' in the sense of the term as described above to the communities of Paris or Rouen. In the early days, so decreed the royal edict, those born outside France could never be received into a union. A Denner, in spite of his talent, could never have become a received master instrument-maker in France, even though he had paid the dues demanded by the union rules.

Equality of rights was not respected within the unions; there were great discrepancies shown towards those who aspired to mastership. Favour was not bestowed equally on all masters' sons; the sons of sworn members [jurés], of former masters [anciens maîtres], and of new masters [maîtres modernes] paid more or less in fees according to the position of their father. There were also differences between apprentices who were relatives of masters, those who married the widow of a master, and the apprentice who had terminated his period of apprenticeship.

Union reform

Under the leadership of Dumanoir II the union of instrument-makers suffered many calamities. He abdicated the position in 1638, retaining only his honorary title of roi des ménétriers.² For some years thereafter the union governed itself without a leader, but so much dissention broke out that the organisation was eventually totally discredited. In 1691 Louis XIV, under the pretext of abolishing the intrigues which operated in the elections of sworn members and of reforming the organisation of trade, but in reality in order to raise more

1 Pontécoulant, L. G. le D. Organographie (Paris, 1861)
Organo I, p. 120 and ff

money through taxation, suppressed all elections of sworn members and converted these offices into hereditary positions.

In 1697 after the death of Dumanoir II a Council disposition abolished the title of roi des ménétriers. Thus also disappeared the position of 25th violin in the grande bande of 24, a position specifically reserved for the holder of the office of roi des ménétriers.

Its constitution being under attack almost daily, the union's credibility weakened. Oboists joined the union of instrument-makers, having been exempted from membership of the union by a decree of 1689. The King's declaration of 1692 submitted these instrumentalists also to the conditions of mastership. The sworn members, not content with forcing the oboists to join ranks with them, also wanted to enlist the clavecinists and the organists. The move was brought to judgement: the Châtelet was favourable but in Parliament the sworn members did not receive the ratification they required to carry through the amalgamation.

In 1701 Saint-Julien's union offered to purchase the offices of newly sworn members and treasurer for the price of 20,000 francs. It obtained in 1707 new patent letters in which the King, while approving the concessions of the four offices of sworn members and the one of treasurer, also authorised the union to operate them as and how it wished. In the same letters the King encouraged the teaching of all instruments including the flûte allemande et traversière in the Académie royale.

To be classed as a master it was necessary for an instrumentalist to demonstrate his capacity as a dancer as well as an instrumentalist. The 24 violons de la chambre and dancing masters of the court were exempted from this test.

Opposition against incorporating organists and clavecinists into

the union caused the King to produce new patent letters on 25th June, 1707, which declared that in future the union would only comprise dancing masters, instrumentalists (high and low) and oboists. The union gradually lost its power and influence, and the outcomes of its legal wrangles were almost always unfortunate. It attacked ^{the} Académie royale de Musique, forbidding musicians at the Opéra the right to play outside the auditorium for balls, serenades, or other public occasions. A Council statement of 1728 gave permission to artists from the Académie to play for public occasions and to accept outside professional engagements.

In 1741 Jean-Pierre Guigon became leader of the union of instrument-makers and set about restructuring its functions. A general assembly of all instrumentalists from Paris and other towns in France took place in the hall of Saint-Julien. The statutes were reduced on that occasion to 28 in number, of which the broad aims were (i) to re-establish the former supremacy of the parent union and its leader over the proliferating provincial unions, (ii) to reconstitute general mastership of all instruments for the whole body of union members, (iii) to change the conditions of musical mastership to suit the needs of the time, and (iv) to re-establish good internal administration. The problem of reconciling apprenticeship in some form with the demands of apprentices to progress more rapidly towards mastership was resolved by Guigon. Feeling that to retain an apprenticeship scheme of fixed duration went against the interests of the liberal arts, Guigon decided that all who were judged capable of being useful to the public through their talents could be admitted to mastership. All Parisians so wishing could stand trial for entry to the mastership, with the exception of the 24 violins who, having paid the old tax of 50 livres, retained the privilege of obtaining mastership without trial. For all but

sons or relations of masters the fee for reception into the mastership in Paris was 300 livres. This was split up as follows:

- (i) 240 livres contributed towards union funds,
- (ii) 60 livres paid to the leader of the union.

For sons or relations of masters the fee was 165 livres split thus:

- (i) 145 livres contributed towards union funds,
- (ii) 20 livres paid to the leader of the union.

Financial deprivation was not uncommon amongst union members; registers of the union show that they paid dues erratically. Members provided generous mutual help, however, in illness or old age. When a maker could no longer earn his living, each member of the union gave 1 sou per week, and the youngest member gathered the collection for the needy.

Chapter 2

French achievements in woodwind construction c. 1700

During the 16th and 17th centuries homogenous consorts of instruments using bass, tenor, and treble ^{Shawms} ~~flutes~~ (as with recorders and viols) were preferred to broken consorts. Virtuosi gradually showed a preference for a certain tessitura in the case of each instrument, and craftsmen transformed consort instruments into solo instruments. This trend marked the change from Renaissance to Baroque - from polyphony to concerto.

Documentation of the history and development of woodwinds in France was sporadic in the years between Mersenne's Harmonie universelle (Paris, 1636/7) and the end of the 17th cent. when they emerged more or less in the form in which they were to exist for almost 100 years. Writing in 1752, Quantz stated that the developments in the flute first took place in France, and that the inventions and improvements brought about by French makers were at the date of his writing not then 100 years old. There is no doubt that the 1-keyed conical flute was well established in France c. 1700, since Hotteterre le Romain in the Preface to his Principes de la Flûte (Paris, 1707) confirms that the flute was then one of the most agreeable and fashionable of instruments.

Apart from non-specific references to instrumental development in the writings of Hotteterre and Quantz, there were few references in contemporary literature to the developing woodwinds, and no books were written similar to those of the 16th cent. which dealt systematically with instruments. Old woodwinds were extremely perishable because of their delicate bore and the thinness of the wood of which they were made. Constant improvements in mechanism made instruments quickly obsolete and useless to future generations, and ^{they were} therefore were discarded.

For these reasons few early woodwinds from c. 1700 have survived.

All remaining evidence suggests that woodwinds made by the Hotteterres and their contemporaries showed the following characteristics: (i) Construction in several sections. (ii) Ornamental external appearance. The influence of the Renaissance on wood turning was visible in the elaborate decoration of the collars which strengthened the sockets at the joints. (iii) Unusual internal bore. The changes of bore from section to section resulted either from a cone and a cylinder meeting end to end, or from two joints of differing bore diameter forming an abrupt step. Such bore construction had some acoustical effect, but this the early makers did not consider vital. Although these bores produced the musical results required at the time quite efficiently, their unusual profiles were not arrived at through deliberate experiment; in their lack of continuity from section to section the instruments were indeed primitive. The Hotteterres probably adopted this type of bore construction because Jean Hotteterre (grandfather of Jacques Hotteterre le Romain) was a bagpipe maker, and these methods were traditional in musette making.

Transverse flute

The simple transverse flute on which the Hotteterres effected their improvements was a plain cylinder, the intonation of which was corrected by embouchure control. About 1680 the cylindrical bore was replaced by one which was conical (except in the head joint, which remained cylindrical). The bore increased in diameter towards the blowing end, a feature which was the reverse of the shaping usually found in conical woodwinds. The internal diameter of the cylindrical head was fractionally less than $\frac{3}{4}$ in. The taper of the bore began at the top of the middle joint and continued to the beginning of the foot, where the diameter of the tube was a little less than $\frac{1}{2}$ in. From

that point the bore varied considerably, sometimes being cylindrical and sometimes increasing in diameter again. Earliest 18th cent. flutes may be distinguished by the convex exterior of the foot joint; later (more common) models had a straight or slightly tapering foot.

The dating of the introduction of conoidal bore in woodwinds, mentioned above as 1680, is still by no means certain. Rockstro claims that conoidal bore was introduced about that date.¹ Hotteterre le Romain's Principes de la Flûte (Paris, 1707) contained two engravings of conoidal flutes and thus proves that such instruments were in use c. 1700. Rockstro also suggests that the inventor of the change to conoidal bore in flute construction may have been J. C. Denner of Nuremberg. This maker (as did French craftsmen) at first made the contraction of the bore towards the lower end.

According to Rockstro the application of keys to woodwinds began about 1660. Many old engravings show that open-standing keys were applied to instruments either to help performers' fingers reach the holes of large instruments, or to extend the compass of both large and small instruments downwards. On the flute the application of keys dates from 1660-70. An unknown inventor (possibly one of the Hotteterre family?) introduced the d^{sharp} key on the Chevalier flute of 1670 (see p.25). Quantz was unable to discover the inventor of the d^{sharp} key, but added

... there is no doubt that the invention took place in France rather less than 100 years ago. The first performer to distinguish himself on the 1 keyed flute was the celebrated Philibert. After him came la Barre, Hotteterre le Romain, Buffardin, and Blavet.²

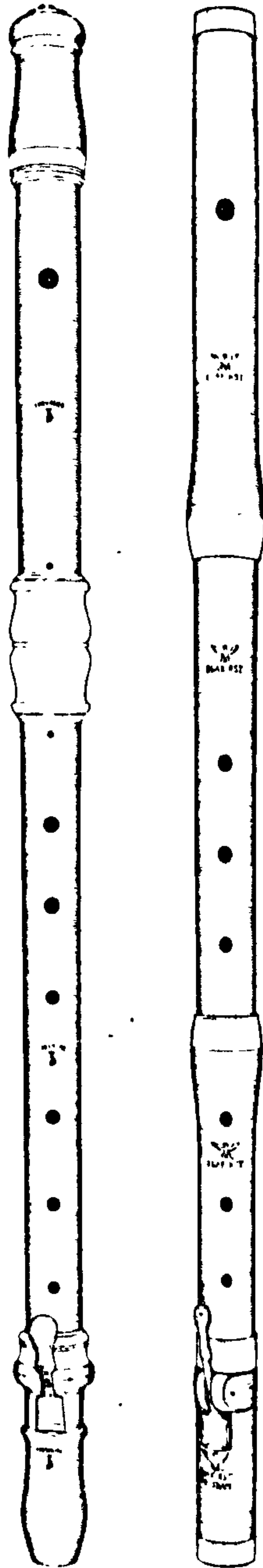
It seems impossible to reach a consensus on which individual

¹ Rockstro, R. The Flute (London, 1928) p. 222

² Quantz, J. Versuch ... (Berlin, 1752) Chap. 1, Par. 6

BAROQUE FLUTES

These flutes are the correct instruments for an authentic performance of Baroque flute music.



Chevalier Copy

Flute by Chevalier of Paris, made ca 1670, now at the Museum of Fine Arts, Boston. Modern pitch A 440.

Kirst Copy

Flute by E.G. Kirst of Potsdam, ca 1740, now at the Staatliche Musikinstrumentensammlung, Berlin. Five ivory fittings, key in sterling silver. Available with extra center piece for playing at old and modern pitch.

Drawings by Friedrich von Huene

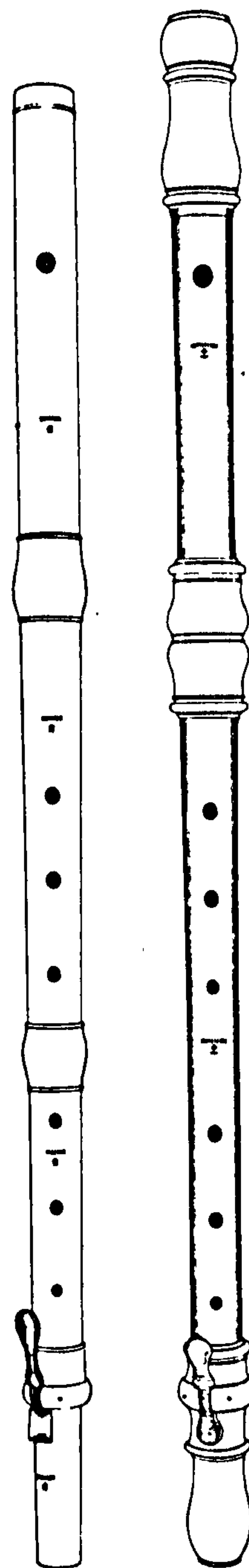


Scherer Copy

Flute by Scherer, made about 1720, now in the Collection of the Conservatory of Brussels. In ivory, key in sterling silver. Available with extra center piece for playing at old and modern pitch.

Hotteterre Copy

Flute by Hotteterre, made about 1670, now in the Musical Instrument Collection of Leningrad. Boxwood. Cap, barrel, and foot in ivory. Key in sterling silver. One whole tone below modern pitch.



maker or player was responsible for each of the vital woodwind inventions c. 1700. Edgar Hunt claims that it was probably about 1650 that the Hotteterres introduced conoidal bore with jointed construction, and that some 20 years later they added a D_4 sharp key for the production of the lowest semitone.¹ This statement is the exact reverse of that made by Rockstro.

Quantz claims that the first elongated flutes which were designed to produce C_4 sharp and C_4 natural using open-standing keys appeared about 1722. He commented that this addition was more trouble than it was worth and was soon abandoned.² The E_6 flat key, invented shortly afterwards by Quantz himself, was not popular and disappeared from use soon after his death.

Before the advent of jointed construction, long pieces of blemish-free wood were required for instrument-making. Extra-long boring tools had to be used, and these involved risks of inaccuracy due to play. Jointed oboe, flute, and recorder construction pioneered by the Hotteterres allowed shorter lengths of wood and more accurate boring tools to be used. The flute was probably the least successful of the early 18th cent. remodellings, defects being caused by unequal distribution of note holes and the presence of closed keys.

'My son, you know I hate wind instruments: they are never in tune'.³

Scarlatti's comment (before hearing the masterly playing of Quantz) was typical of the ^{scepticism} ~~sceptical taste~~ with which woodwinds - and especially the transverse flute - were regarded c. 1700.

1 Hunt, E. The Recorder and Its Music (London, 1962) p. 51

2 Quantz, J. loc. cit. Chap. 1, Par. 16

3 Quantz, J. Versuch ... English trans. by E. Reilly (London, 1966)

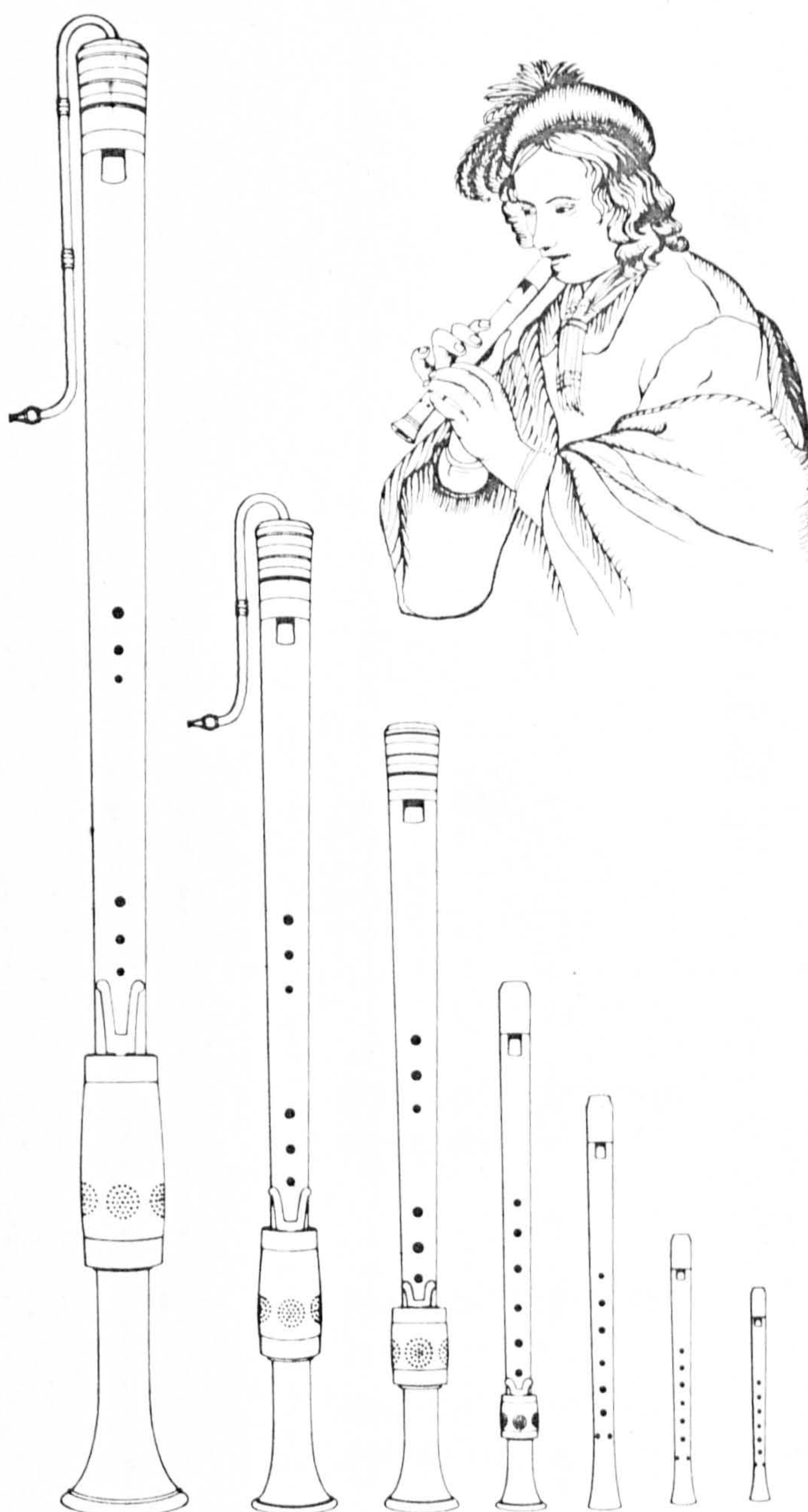
Recorder

The recorder was remodelled by the Hotteterres around 1670-80 from the 16th cent. design which was made in three sizes: 18, 24, and 36 ins., pitched respectively in F_4 , C_4 , and F_3 . It was bored all in one piece and was conical throughout its length. A barrel-like fontanelle protected the key mechanism, and the fact that many of these instruments were blown direct without the use of a crook and were probably gripped between the player's legs for support caused such protection to be necessary to avoid accidental closure of a key. The fontanelle became obsolete when the use of a crook led to changes in playing positions.¹ Octave harmonics were available with a 'pinched' thumb hole, and fork fingering completed the range of the instrument. Hole 8 was bored in duplicate to accommodate right and left handed players. The hole not required was sealed with wax, and thus on what was known as the flûte à neuf trous only 8 holes were functional. On larger sizes of recorder a swallow-tail key was provided for the equivalent function. On bass recorders the foot was sometimes rounded off and provided with a post on which to support the instrument. When a post was inserted an alternative end-hole was provided in the side of the foot joint, and, besides providing support, use of the post may also have increased the instrument's tone by means of resonance from the floor of the music room.

The Hotteterres' improved instruments introduced three-jointed construction. Duplicate holes became redundant since it was an easy matter to twist the foot to the desired position for right or left handed performance. It had a cylindrical head joint surmounting a

1 Hunt, E. 'The Bass Recorder' Recorder and Music Magazine

(London, 1963) p. 12 (See illustration p. 29)

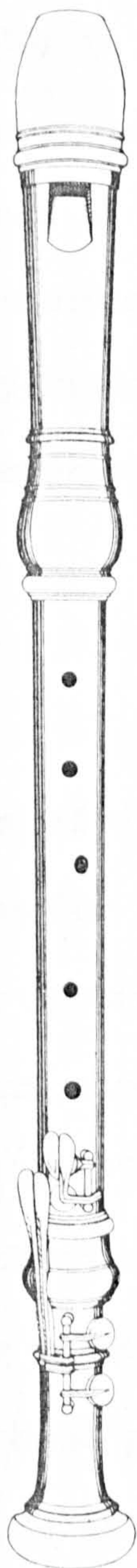


Renaissance Recorders

These instruments closely follow the design of Renaissance recorder makers. They are ideally suited for the performance of music written between 1400-1650. Renaissance Recorders have a larger bore, a stronger sound and a smaller range than Baroque Recorders. They can be made in two or three sections for tuning and disassembling.

- | | |
|------------------------------|----------------------------------|
| 1. Sopranino in f'' | 5. Basset in f, with one key |
| 2. Soprano in c'' | 6. Bass in c, with one key |
| 3. Alto in f' | 7. Great Bass in F, with one key |
| 4. Tenor in c', with one key | |

Drawings by Friedrich von Huene



Baroque Sopranino
Recorder in f''

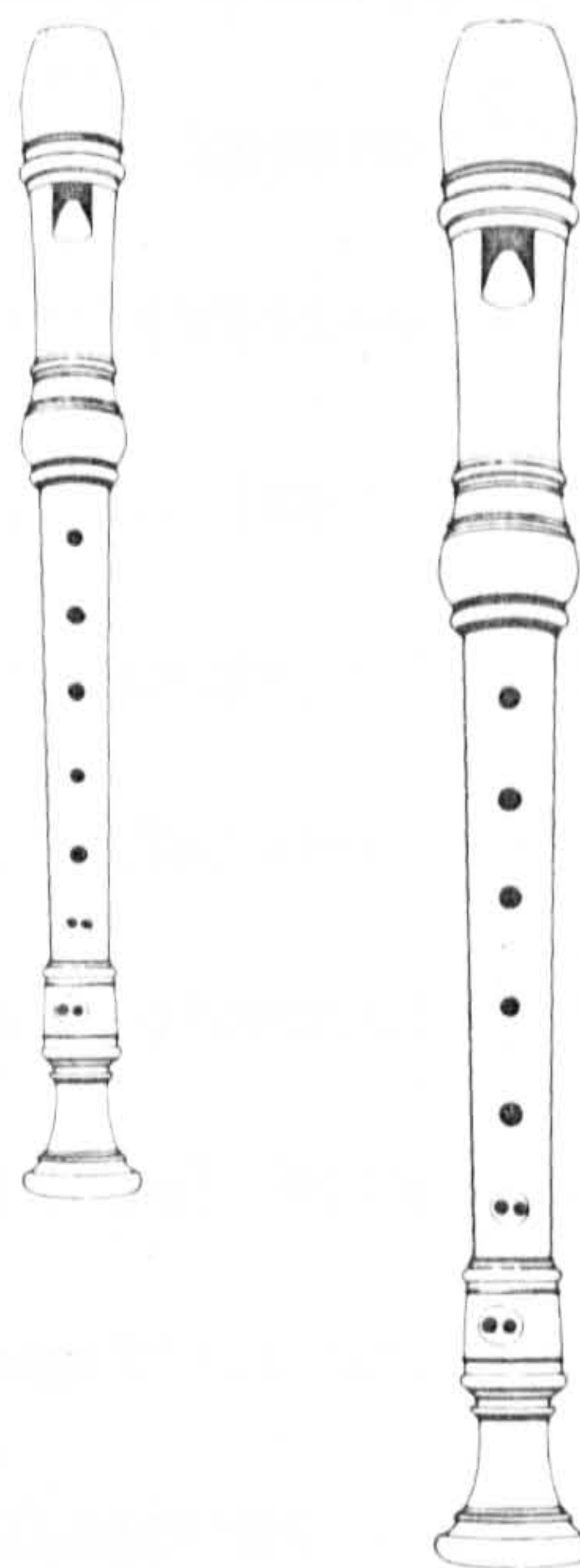
Baroque Soprano
Recorder in c''

Standard instrument with
double holes and two ivory rings.

Baroque Tenor
Recorder in c'

Standard instrument with
double holes for d' and d#', two
keys for c' and c#', two ivory
rings.

Drawing shows an instrument
with four keys eliminating
double holes.



contracting body whose angle of taper was approximately double that of earlier designs. This gave it a fuller, less reedy, sound which was ideal for consort playing, but less suited to expressive solo work - the locale for the recorder's 18th cent. activities - and this discrepancy between the nature of the redesigned instrument and the task it was asked to perform may have in some measure contributed to the decline of the recorder in the 18th cent. The new instruments operated on a low wind pressure, and were less exhausting to play than the earlier instruments had been. Its conical bore and ingenious fingering gave the recorder its sure intonation and chromatic completeness, and in a period of common development c. 1700 it is surprising that the transverse flute remained so long under-developed in this respect.

Oboe

After its period of development in France c. 1660 the oboe underwent no major changes for 90 years. During this period of relative design stability the instrument was known as the two and three-key oboe. Three-keyed oboes were almost always older than the two-keyed type, and few were made after 1750. The only difference lay in how they could be held: the three-keyed type followed the tradition of reversible hand positions as used on the shawm and recorder. The disappearance of alternative hand positions and the total adoption of the left over right playing position may therefore be dated at c. 1750.

The new oboe replaced the shawms and cornets of Louis XII's Douze grands Hautbois du Roi, and the instrument was illustrated by Tardieu in his engraving of that élite corps taking part in the coronation of Louis XV in 1722.¹

¹ Thoinan, E. Les Hotteterre et les Chédeville (Paris, 1894) p. 33

The refinement of construction and ornamental appearance of the earliest oboes owed more to the highly developed musette of the French court than to members of the shawm family. A graceful baluster at the top of the upper joint was balanced by a swelling at the socket of the middle joint. The baluster often ended in a funnel-shaped expansion, a vestige of the detachable pirouette of the shawm. The pirouette profile was typical until c. 1750, after which the baluster was reduced to a cylindrical form. Ornamental thickenings also fulfilled the practical purpose of strengthening the tube at points where splitting was liable to occur. Below the finger holes on the middle joint a heavy raised ring of square section was slotted to provide a mounting for the duplicate small keys and the swallow-tail touchpiece of the great key. The joint ended with a further moulding. Plain wooden mouldings were sometimes supplemented with ivory, but less commonly so on the oboe than on other woodwinds. The profile of the bell joint usually continued the taper of the middle joint. The waist of the bell was almost cylindrical and its length was defined by two prominent raised rings on either side of the tuning holes. Below this a marked flare terminated in a cushion-like lip which was usually undercut to a depth of 3 or 4 mm. The trumpet-like flare of the bell, reminiscent of the shawm, was retained until the end of the 17th cent., after which the curve and lip of the bell became much less pronounced.¹ Compared with the modern instrument, the bore was large in proportion to the length of the oboe. Sheet metal (silver or brass) was invariably used for the square-headed keys which had round touchpieces. Springs were attached to the body and pressed upwards against the underside of the touchpiece.

Towards 1750 a much simplified version of the oboe appeared in which beauty of form was subordinated to the plain and practical.

¹ See Bate, P. The Oboe (London, 1962) p. 44 for an illustration of the bell and baluster profiles of three typical early oboes.

Sockets lost their decorative quality and became merely functional. The heavy rings which supported the keys were reduced in size leaving ugly block mountings for the pivot wires. Two and three-keyed instruments of this type exist, and museum specimens show various degrees of simplification suggesting that so radical a change did not occur suddenly.

Bass oboe

One reed instrument on which the Hotteterres unsuccessfully exercised their skills was a variety of bass oboe measuring about 42 ins., which had a bassoon-like crook. Of three-jointed construction, ornamental turnery was prominent at the sockets. The 1st, 3rd, 4th, and 6th holes were covered by open-standing keys to reduce the stretch of the hands. In this form the instrument was an anticipation of the heckelphone, and was designed to perform bass parts in pastoral ensembles of musettes, recorders, crumhorns, etc. An illustration of the instrument appeared on the title page of Borjon's Traité de la Musette (Lyon, 1672) (see p.34).

Bassoon

The curtal was generally made of a single block of wood with 2 parallel conical channels bored up and down it, connected at the lower end, but occasionally it was made of two sections hollowed out and glued together and then covered with leather. A short, slightly flared bell was set on top, and it was played with a double reed mounted on a short crook. In 1636 Mersenne used the term 'basson', but he was describing a type of curtal with the bell lengthened to obtain a downward range to B₁ flat. Baines has suggested that this may have been in order to match the compass of Louis XII's 'cellos, tuned a



Charles Borjon, Traité de la Musette (Lyon, 1672) Frontispiece.
 Note illustration of the bass oboe referred to on p. 33.

tone lower than normal.¹

Sometime in the mid-17th cent. the one-piece curtal was transformed in France into a separately jointed instrument: the bassoon. The bassoon was made in four separate joints: (i) the butt, or double joint, which held (ii) the wing, or tenor joint, (iii) the long, or bass joint, and (iv) a slightly flared bell joint with a curved metal crook carrying the double reed. These sections formed a continuously expanding tube $8\frac{1}{2}$ feet long, including the crook. The bassoon was pitched in C as was its predecessor, had finger holes drilled at about 45° angle, and some keys. Its compass was B_1 flat - F_4 or A_4 . To the two keys of the curtal a third was added at the time of the instrument's transformation. By 1730 a fourth key had been added for A_4 flat, and during the 18th cent. four keys were standard.

Reeds and reed-making

The type of cane best suited to woodwind reed-making is Arundo donax. Cultivation of it became a specialised industry in the Doubs and Var regions of France, and the trade was almost entirely centred on Fréjus. The records of two cane growers show that reed cultivation for musical use has been a family speciality for over 250 years. The use of Arundo donax was established in the period 1690-1750, and it was this type of reed to which Jacques Hotteterre referred in the section in his Principes dealing with the oboe. He gave the following information about reed dimensions and responsiveness:

The reed is inserted between the lips to a distance of 2 or 3 lignes [$\frac{1}{4}$ to $\frac{1}{3}$ in.] leaving about $1\frac{1}{2}$ lignes [$\frac{3}{16}$ in.] between the lips and the wire of the reed. The length of the reed blades must be $\frac{9}{16}$ in. at maximum. The lips are so placed

1 Baines, A. Woodwind Instruments and their History
(London, 1967) p. 286



Jean Antoine Watteau (1684-1721) 'Bassoon-player'

The bassoon-player standing so elegantly in front of the curtain (probably washed in later by another hand) is similar in spirit to the 'Indifférent' in the Louvre, Paris.

that they may be compressed to a greater or lesser degree as required. Care must be taken that the teeth do not come in contact with the reed ... One must remember to increase the wind and lip pressure gradually as the scale ascends.¹

Modern fantail oboe reeds measure $\frac{3}{4}$ in. from the mid-point of the scrape to the top of the lapping. The short $\frac{9}{16}$ in. blade in the period 1690-1750 influenced the quality and pitch of the notes produced as has been shown by Bruce Haynes.² *My own experimentation suggests that* The freedom of intonation which the old reed afforded, coupled to a relatively large bore and deeply undercut fingerholes, was an essential aspect of its function during a period when temperament was unstable. The wider the blades of a reed are in relation to the bore of the instrument, the less prominent are the upper partials. Consequently, the early oboe produced a broader and less incisive tone than the modern instrument.

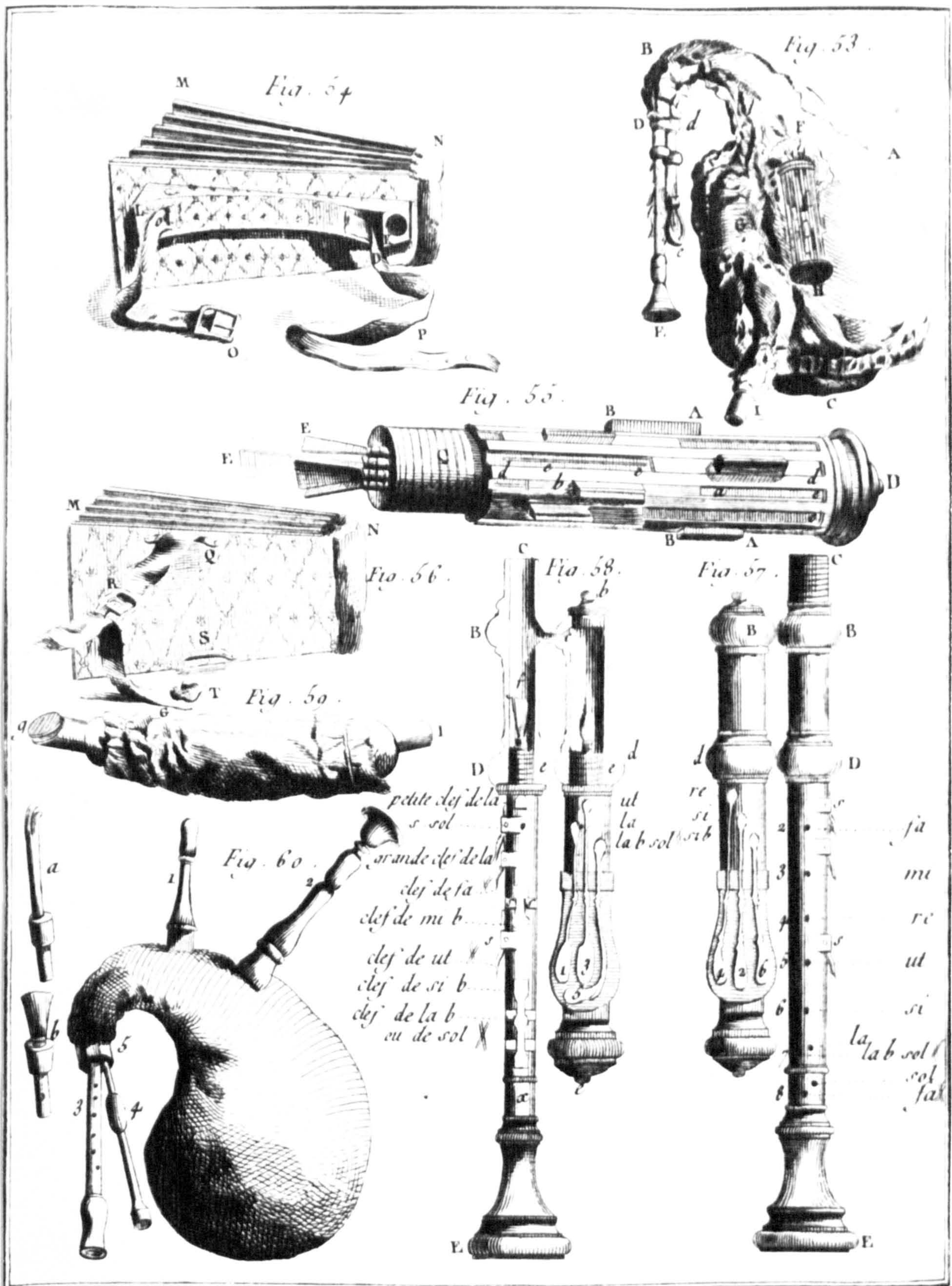
Changes in the reed brought about alterations in the staple. Many old oboes were made shorter than their nominal sounding lengths at current pitches. This implies that use was made of a supplementary crook, or at least a very long staple. (The average staple length recorded by Talbot was 64 mm; a recent example measured 34.5 mm.) Diderot in his Encyclopédie illustrated a plain reed which plugged directly into the oboe's top joint. Some French oboes of the 1750's were probably intended for use with such reeds since they were longer than average by approximately the length of a staple.

Musette

Praetorius in 1618 established a formal distinction between the cornemuse and the musette. The chanter of the cornemuse had a conical

1 Hotteterre, J. Principes (Paris, 1707) pp. 44 and 45

2 Haynes, B. American Recorder Magazine (New York, 1968) Vol. IX



Lutherie, Instruments à vent. Musette. Cornemuse.

Diderot and D'Alembert Encyclopédie (c.1756)

Illustration from their article on instrument-making showing clearly the differences between the musette and the cornemuse (bottom L.H. corner). The bellows (top L.H.) are not connected to the sack of the musette (top R.H.). The reeds of the drone are clearly exposed (Fig. D). See p. 39 for a photograph of a fine example of an assembled musette. Note that the authors have borrowed the engraving (on a smaller scale) of the chanter from Borjon's Traité de la Musette (cf p. 140)

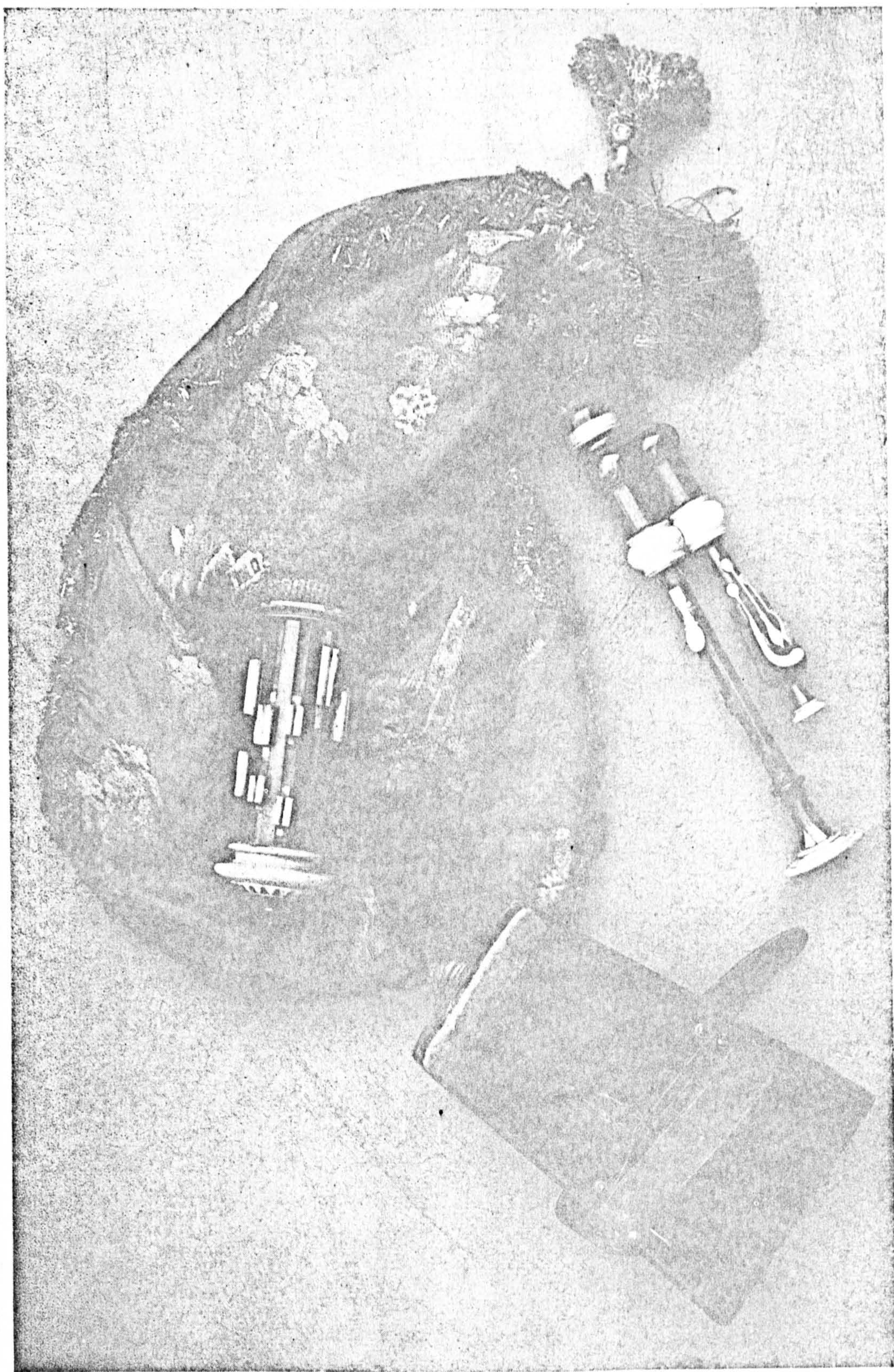


Photo: L. Langwill, Esq.

Photograph of musette clearly illustrating ivory vent sliders on the drone, double chanter, and bellows.

bore and double reed. Its holes were covered to give the diatonic notes of the scale of C or F, semitones only being possible by fork fingering and the range was restricted to one octave. The notes of the drones were invariably determined by the tonic of the chanter, and consequently no modulation was possible within the course of a piece of music. The goatskin sack was put in direct contact with the mouth of the player. The chanter of the musette, on the other hand, had a cylindrical bore, and as it was of very small diameter it acted like a closed pipe and produced sounds an octave higher. The most characteristic difference between the two instruments lay in the drone. That of the musette was a small cylinder of ebony or ivory about 16 cms. long and 3 cms. in diameter. It was bored along its length with parallel inter-connecting tubes. One out of every two or three of the tubes was blocked with ^{cork} beeswax at the upper end, and the resulting bent linked tubes formed four separate windways of different tube lengths whose actual sounding lengths were approximately two or three times greater than the external appearance. The drone accompaniment of the chanter melody was no longer confined to one (monotonous) sound. The goatskin sack of the musette was inflated by a small bellows which the player held under his right arm after fastening them round his body with a strap.

By the addition of a small chanter with six keys (three on each side), the invention c. 1650 of Martin Hotteterre, the instrument was given a much extended range from $F_4 - D_6$. Until a key was opened by the little finger or the thumb the small chanter remained silent.* Semitones were produced by keys which allowed for more rational hole positioning and more accurate air emission than in the cornemuse.

* See my fingering chart for the musette in Chapter 7



GROTESQUE COIFFÉ EN MUSETTE

Dessin de Berain. 1680

(Bibliothèque de Versailles)

Briqueville Les Musettes (Paris, 1894) p. 9

Line drawing showing the far-reaching vogue for the musette.

Chapter 3

Instructions for making and maintaining woodwinds

Bergeron's Manuel du Tourneur (Paris, 1816) dealt fully with the methods employed in making several types of instrument. The section on the flute illustrated principles common to the construction of all early woodwinds. None of the French makers c. 1700 left an account of their methods. Since woodwind making remained relatively stable during the 18th cent. I have felt justified in taking material from Bergeron's book to act retrospectively, thus giving an approximate account of the procedures adopted at the beginning of the century; no glaring anachronisms result. Illustrations of tools from Diderot and D'Alembert's Encyclopédie show that they have much in common with those of present-day non-industrialised instrument-making.

The instructions about flute-making in the Manuel were clear, accurate, and detailed,¹ as the following information (translated and paraphrased by the author) shows.

Very detailed scale diagrams with measurements clearly marked were provided as guides to the construction of each instrument. Measurements were provided since the paper then in use stretched when engravings were made on it, and alterations to scale drawing dimensions were not in proportion; critical errors were caused especially in some of the smaller measurements such as the angle of inclination of the conical finger holes.

The flutes described in the book had four joints and several keys, while those of the Hotteterre period had only three joints and one key. For tuning purposes, the head joint consisted of two pieces joined by a pompe [hollow cylinder of silver or copper]. As an alternative to the pompe, three separate central joints of differing lengths provided a limited method of varying the overall pitch, but the intonation of the whole range of the instrument was adversely affected.

Between the domed end of the head joint and the mouth hole was a cork plug; it was put in position or removed for cleaning purposes using a cylindrical block of hard wood. This plug made

1 Bergeron Manuel du Tourneur (Paris, 1816) pp. 43-45

the tube into a closed-end pipe.

The wood recommended for flute-making was Spanish boxwood, much to be preferred to French boxwood. Ebony and grenadilla gave similar clear-toned instruments, but the hardness of these woods added many practical difficulties. The pieces for each section had to be carefully selected and matched for colour and graining, each part being split with an axe (never cut with a saw) to ensure that the cleavage followed the grain of the wood.

Each section was then roughly shaped on the lathe. The tubes were hollowed out to approximately the correct size using a drill. If the wood used was unseasoned, it was necessary for the joints to dry out at this stage away from sun and moisture. The hollowing out was done with graded drills [perces] which had to be kept keenly sharpened. These tools became smaller in diameter with continual use, but this was compensated for by using them at a wider part of their conical heads. The instrument was not hollowed out completely until all the sections had been assembled.

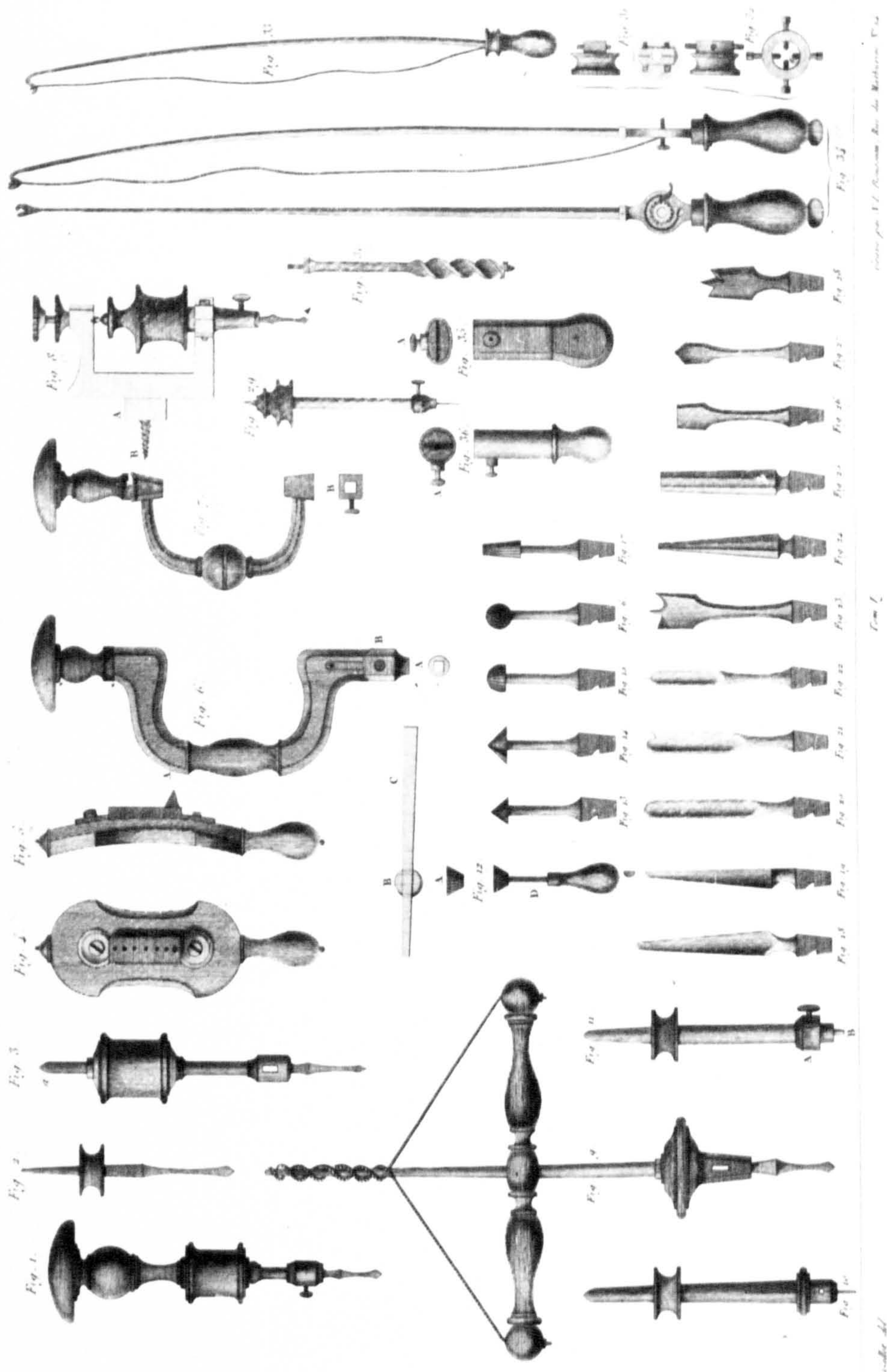
The tenon and socket joints were made according to the measurements on the diagrams in the Manuel, each joint being mounted in turn on a mandril of suitable size. The operating of turning and boring at this point was very delicate, since the inside and outside surfaces of the tube had to be concentric when finished. Bad workmanship impaired the purity of sound, and also made the assembling of the sections difficult.

Each part was then returned to the lathe and the external dimensions finalised. To obtain air-tight joints, the tenons had to be smaller than the sockets, allowing them to fit snugly once the tenons had been bound with waxed thread. The tenons were slightly grooved to prevent the thread slipping.

Each socket was usually mounted with a collar of silver, horn, or ivory - silver being most suitable since the collar served a strengthening as well as a decorative purpose.

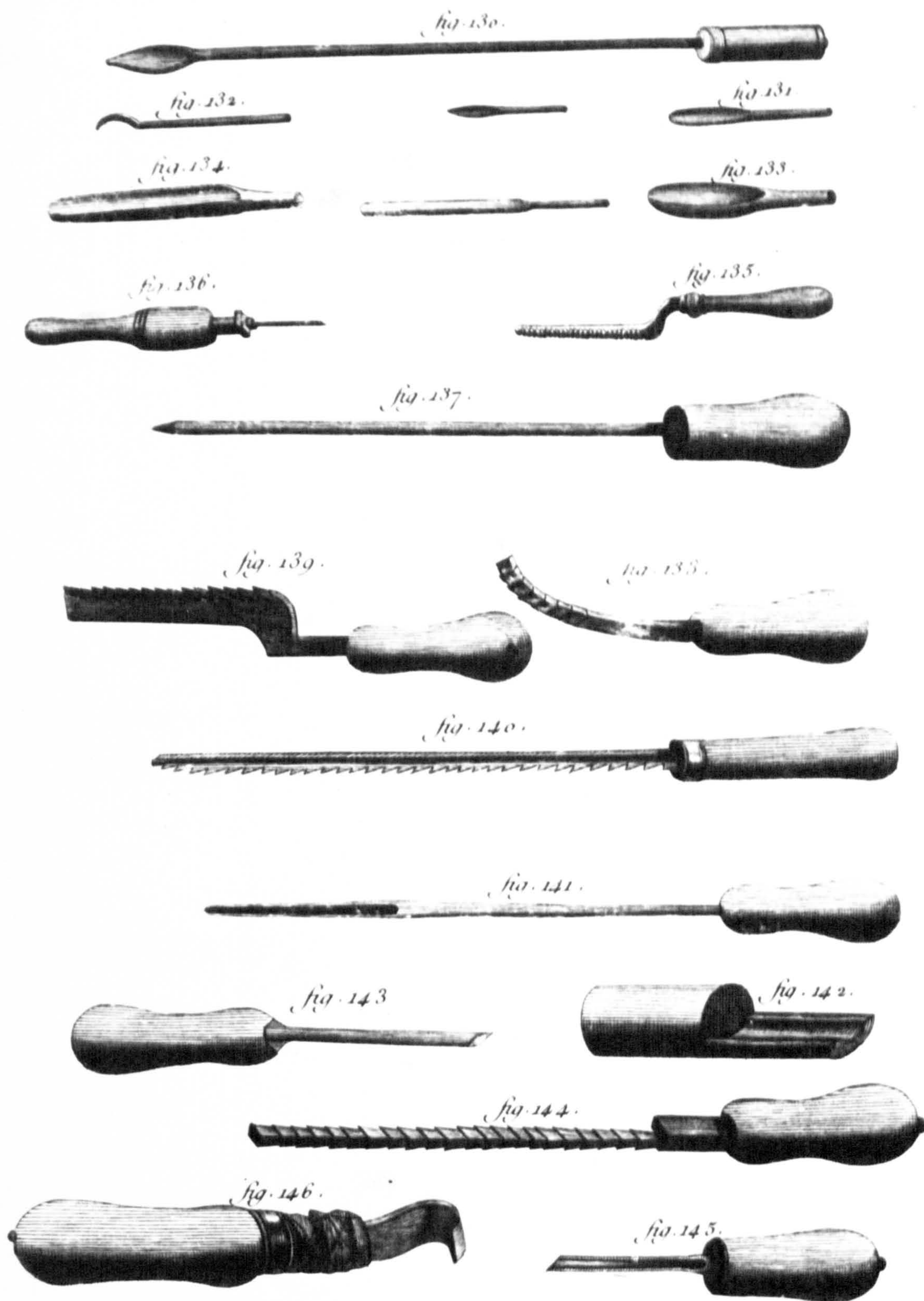
The uncovered holes were pierced first. Their exact positions were found from the diagram. A line was drawn parallel to the axis of each tube and the distance of each hole along this line marked. The pointed centre-bit used as a boring tool had a smaller diameter than the smallest hole. The conical surface of this tool was calibrated so that the measurement corresponding to the diameter of the hole being made could be seen (see p.44). The hole was not completely bored, leaving a margin on which to work for pitch adjustment. The final working was done with a knife, the instrument being tested for tonal quality and pitch after every shaving had been gouged out. The holes were so chiselled that their internal diameters were larger than the external ones. This was known as the undercutting of finger holes.

When the sections were joined together care had to be taken to place the uncovered holes in a straight line. The operation of finalising the internal bore was carried out using a long-handled bit, the head of which was a truncated cone with a non-concentric cone hollowed out (see p.44). It was important that this tool



Bergeron, Manuel du Tourneur (Paris, 1816)

Exceptionally fine engraving of tools used by woodwind makers. Note Fig. 12 which was the type of tool used for undercutting finger holes. The head screws off, is inserted inside the bore, and is then rescrewed to the stalk protruding through the hole. The cutting surface is thus inside the tube and the tool is rotated with a pulling action.



Lutherie, Outils propres à la fabrication des Instrumens à vent.

Diderot and D'Alembert Encyclopédie (Paris, c.1756)

Illustration from the article on instrument-making showing tools used in woodwind manufacture. Tools are listed on p. 46.

List of tools shown on p. 45

Fig. 130	Perce-montée
Fig. 131	Perce
Fig. 132	Perce
Fig. 133	Perce
Fig. 134	Perce
Fig. 135	Equoine
Fig. 136	Perce-foret
Fig. 137	Perce-bourdon
Fig. 138	Entailloir courbé
Fig. 139	Entailloir droit
Fig. 140	Couliffoire
Fig. 141	Autre perce
Fig. 142	Grattoir à anches
Fig. 143	Perce à main
Fig. 144	Autre couliffoire
Fig. 145	Evidoir
Fig. 146	Ecurette (or curette)

should be extremely sharp, as a highly-polished internal surface was essential. Any air friction caused by a stray wood splinter would have spoiled the tonal quality of the instrument.

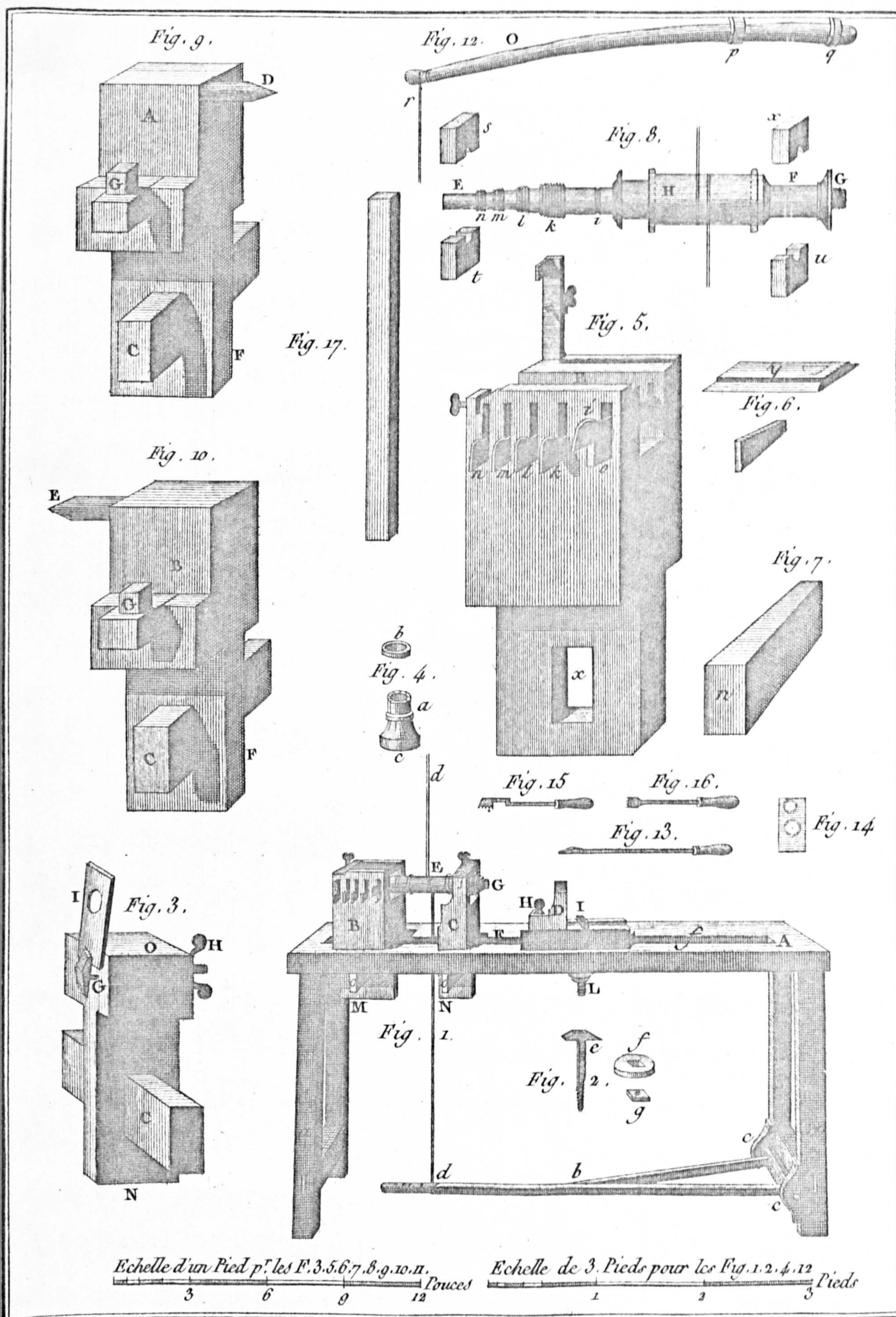
The key(s) were then placed on the flute, each pad covering the appropriate hole. The outline of the position of the plaque 'key plate' was traced with a sharp instrument on the tube. A small piece of wood of the same thickness as the plaque was chiselled out of the marked position. The plaque was then inserted and attached with nails which were short enough that they did not penetrate the tube. Animal skin was used for the pads of the keys, the flesh side being placed next to the holes.

At this stage the flute produced well-pitched sounds, although they were often rather sour in quality. To improve the sonority of the notes, the foot joint had to be hollowed out round the base. Each hole was then tested in turn for pitch, and in the case of each sound which was not quite in tune a knife was used to hollow out the internal surface of the hole (see Ch. 4 for more information re tuning).

Instructions such as those relating to the selection and preparation of wood were written as the result of long trial and error experience. The change in size of his tools due to wear was only one of the many details which the maker had to observe in the interests of impeccable accuracy. The Manuel gave instructions for fitting keys to flutes, and pointed out that the positions of covered holes could deviate from normal, as long as the length of the sounding air column remained unaltered (French flutes c. 1700 had only 1 key, but keys and fitments of examples of the earlier instrument fit the description given in the Manuel). These points make it clear that Bergeron was writing for craftsmen.

Hotteterre le Romain, on the other hand, provided instructions for the amateur in his Méthode pour la Musette (Paris, 1737). Simple language and elaborate explanation were characteristic of his style, as this paraphrase of material from Chap. 17 dealing with the care of the musette shows:

Since the skin and reeds of the musette are susceptible to damp and to extreme dryness they must be kept where it is neither too damp nor too dry; they must not be left too long without being used. The musette should be folded and placed in a box with a



Diderot and D'Alembert Encyclopédie (Paris, c.1756) Pl. 16

Note the foot-powered lathe and counter-balanced driving rope similar to that shown in the frontispiece to this Volume. Fig. 13 is a perce-montée, and Fig. 15 is a tool for adding external decoration to a woodwind joint.

lock, the key of which must be guarded carefully lest anyone should blow the instrument with the mouth instead of with the bellows, or pull out the chanter or drone in such a way as to damage the reeds, especially if one is lucky enough to have good, reliable specimens. To avoid the wooden tubes falling out and so perhaps damaging the reeds, they should be held in position in the box using clamps which fit into the ends as far as the first joint; or else they should be fixed with small vices or clips at each socket. The keys of the chanter must not be caught or pulled, otherwise breakage or air-leaks may result. To prevent this occurring, the chanters should be wrapped in a piece of velvet cloth after use.

The most delicate reed is that of the small chanter as it is the finest, opening and closing very easily. Opening of the reed is readily noticed by the low pitch of the small chanter when compared with the large chanter. This fault is remedied by pressing the flat surfaces between the thumb and index finger, testing for pitch between each pressing. Closing of the reed raises the pitch, and to reverse this the sides of the reed should be gently pressed; this must be done carefully to avoid breaking the reed. When necessary the reeds of the large chanter may be cared for in the same way.

In a tonally balanced musette the large chanter should have the greatest volume while the notes of the drones should have less, each of these being of the same volume. This is tested by filling the sack with air and pressing strongly with the left arm and sounding each note in turn, starting with the highest and finishing with the large chanter. Notes which are too harsh or too soft may be recognised and noted for correction.

To care for the reeds it is necessary to dismantle the chanters and the drone. This is not an easy task, and requires great care so as not to break the fragile reeds. To remove the reed of the small chanter unscrew the small vice (if there is one) without taking it off completely but sufficiently to free the tenon. Hold the top of the chanters in the left hand, then press the foot of the large chanter on the stomach and lever the small chanter gently, holding it by its foot with the right hand. When it is practically out of the box - this is the most risky part - hold it near the socket without touching the keys and remove it, making sure it comes straight out to prevent rubbing the reed in any way. In replacing the small chanter be certain that the reed is carefully placed inside the box before starting to lever the chanter into its correct position.

In the case of the removal of the large chanter, after unscrewing the clamp, hold the foot with the thumb inside the tube and pull while turning it backwards and forwards gently. When the large chanter has been replaced the clamps must be rescrewed.

If the reeds themselves require attention always hold them by the staple when removing or replacing them. When testing, use the staple and never apply the mouth directly to the reed. If the reed is too high in pitch, lower the pitch by winding some waxed thread or thin paper round the end of the staple, this

prevents it penetrating so far into its hole. If the reed is too low in pitch, pull off some of the binding thread and the staple will then sink further into its hole. To raise the pitch still further, ease some of the thread first from one side and then from the other on to the actual reed.

It is essential to carry some reserve reeds especially for the chanters. It would be of great advantage to the player if he could make his own reeds.

The cause of air-leaks at the keys is usually a fault in the leather pad. In such a case it is necessary to renew the pad. Push out the pin of the faulty key using a small needle-like tool, grasping it at the other end with pliers and taking care to avoid dropping the pin in the process. Remove the old leather pad and clean the metal disc. Warm some wax mixed with refined pitch to a moderate heat and spread this on the polished side of a piece of soft thin sheepskin. Apply the pad to the metal disc and hold with the fingers until the wax is quite cold. Cut off excess skin round the metal. Replace the key and pin. A leakage may also be caused by a weakened or broken spring, in which case the instrument must be returned to the maker.

To slacken the joints of the boxes some pomade or soap may be rubbed on; to tighten them waxed thread or thin paper may be twisted round the tenons. The joints, however, must be secure, otherwise the reeds may be damaged should the sections fall apart.

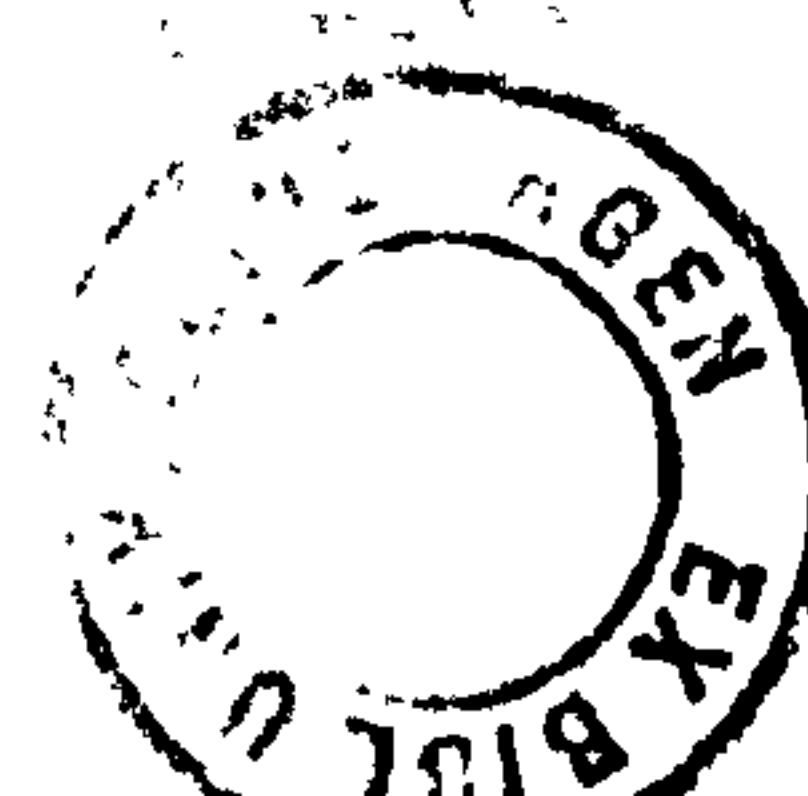
If the sack becomes too dry apply some saindoux [lard], the amount depending on the size and condition of the skin; never apply to excess! Having melted the saindoux on hot cinders, pour it into the sack, half of it through the opening into which the boxes of the chanters fit, and the other half through the wind-hole. Use a funnel to make sure the saindoux flows into the bag and does not clog up the holes. Clean the inside of the boxes well. Rub the two sides of the skin together to spread the preparation. Before larding the sack it must be free of all its attachments. The chanters are detached followed by the wind-pipe, the drone, and the cloth covering [chemise]. Reassemble the musette and inflate it a few times to allow the skin to absorb the lard. The same operation should be carried out on the wind-pipe, but not so frequently.

When folding the musette one must make sure that the boxes do not stick into the sack. To avoid this happening fold the drone dome upwards on top before the sack is completely deflated. Fold the wind-pipe in the same way, making sure both lie within the circumference of the skin. Rolled in their velvet cloth, the chanters are now folded between the wind-pipe and the drone. The musette is then ready to be placed in its case. The bellows with its belt folded and its buckle upwards is placed on top. Should pellets of lard lodge in the boxes it is necessary to clear the blockages since they would prevent the free passage of air. The wind-pipe should be examined first as it is most likely to be affected in this way. A pellet should be drawn out with a blunt metal tool.

Unforeseen difficulties may arise during performance. For example, if a box-key does not close properly a strange whistling effect may be produced upsetting the tonal balance of the instrument. If key replacement is impossible, remove the reed corresponding to it and block up the affected hole with paper or a wooden peg. This temporary measure would suffice until a proper repair can be made. This is effected by putting new leather in the groove or else by packing the sides with bands of parchment or fine paper to tighten up the box-key. If a key should leak the best expedient is to seal off the hole with wax and avoid using the key.

Most of Hotteterre's hints would have been obvious to a player of limited experience. His stressing of the obvious and repetitions of some of the instructions were aimed at the amateur bourgeois musician who formed a new market for such treatises in the 1730's.

For one who supplied so much accurate detail about the care of an instrument it is surprising that Hotteterre did not take equal care over the sequence of the descriptions. For example, he described how to separate the chanters and drone from their respective boxes to test the reeds, and gave a reminder to close the clamps when the parts had been replaced. His next paragraph dealt with the care of the skin, and this was followed by a note about dismantling the chanters and drone with its coverings and mouthpiece from the sack before starting to lard the skin. The instructions for stripping the instrument ought to have preceded those for larding.



Chapter 4

Principles of instrument tuning based on fingering charts of contemporary woodwind tutors.

Fingering charts, whose implications for woodwind playing technique will be discussed in Chap. 6, provide material from which some deductions about factors which makers took into consideration when tuning their instruments can be made. This information is not directly available from any other contemporary source.

The pitch of a note depended on two factors which were the concern of the maker to check and rectify if necessary: (i) the length of the vibrating column of air, and (ii) the ease with which pressure waves could escape from the tube to be equalised with atmospheric pressure.

The greater the ease of escape, the higher the pitch of the note. This fact was well known by Hotteterre le Romain and his contemporaries as was demonstrated in their systematic development of cross fingering for notes above the natural compass of the flute and recorder. For example, if holes 1, 2, 3, and 4 were closed to produce C₅ on the treble recorder the vibrating column extended to hole 5, and pressure waves were free to escape through holes 5, 6, 7, 8, and the bell. If that escape was restricted by closing holes 6 and 7, the pitch of the note dropped by one semitone.

Increasing or decreasing the ease of escape of the pressure waves anywhere in the tube altered the pitch of the note, but the effect lessened as the point of escape approached a node where the pressure was at a minimum. If, by shading with the finger, the ease of escape at the window of the mouthpiece of a recorder (which was always an anti-node, or point of maximum pressure) was impeded, there was a resulting flattening in pitch. Also, by opening hole 2, it was possible to raise

G₅ sharp in pitch, and by increasing the thumb aperture on pinched notes most notes in the upper register sharpened.

Of particular importance in tuning was the fact that ease of air escape was affected not only by the size of the open hole but also by its profile. Pressure waves negotiated gentle curves more easily than sharp bends; undercutting the sides of a hole increased the ease of escape. The general principles were straight forward: (i) To sharpen a note the relevant hole was enlarged or undercut, (ii) To flatten a note the hole was made smaller.

Since there were only 9 holes on the recorder including the end of the bore and at least 24 notes were produced, each hole had to serve for the production of more than one note. Further complications arose from the fact that the length of the air column and ease of escape changed their relative importance in the upper register; there, ease of escape became more important than the length of the air column. Some typical cross fingerings suggested by Hotteterre le Romain demonstrate this: to flatten C₅ to B₄ holes 6 and 7 needed to be closed, whereas to flatten C₆ to B₅ hole 6 only needed to be closed.¹ Thus, if a hole was enlarged or undercut, the upper register was sharpened more than the lower. Conversely, if the length of the tube was altered by changing the position of the hole or by pulling out the head joint, the lower register was flattened more than the upper.

With one hole controlling the function of several notes it was hardly possible to find a position and size which would exactly suit each note and some compromise was essential. It was therefore necessary to establish some priorities in dealing with the approximations which had to be made. These were in order of importance: (i) Sharpness was generally preferable to flatness. It was easier to correct sharpness

1 Hotteterre, Jacques. Principes (Paris, 1707) Appended fingering chart for recorder.

by means of fingering (covering/shading appropriate open holes).

(ii) Plain notes were more important than forked notes. There was nothing that could be done by the player to rectify a flat D_5 except to blow harder; a C_5 sharp could usually be adjusted by adding or removing fingers on the instrument. (iii) Intonation of the lower register was slightly more important than that of the upper because intonation in the latter was more easily corrected by adjusting the thumb aperture on pinched notes.

Before tuning a woodwind it was necessary to establish whether the instrument was generally flat or sharp. Sometimes there was difficulty in deciding how far to carry out any general correction if some parts of an instrument were sharp and other parts flat. The notes controlled by holes 1 and 2 were easier to correct individually than others which could not be corrected without affecting both registers.

To flatten the whole instrument the tube was lengthened by pulling the middle and head joints apart. This however flattened the lower register more than the upper, and also flattened the short tube notes (such as C_5 , F_5 , and G_5) more than the long tube notes (such as F_4 and G_4) because it added proportionately more to their lengths.

To sharpen the whole instrument the tube could be shortened by turning a fraction off the top of the middle joint on the lathe. A more satisfactory result was achieved by boring a small hole in the head joint. This hole was bored immediately in front of the block on a recorder, at the side of the instrument (if it were bored at the bottom it would have become clogged with moisture). A first hole was made with a 1/16 inch bit, taking care that the end of the hole when bored was free from splinters. If this size was insufficient, a second 1/16 inch hole was bored, or else the original hole was enlarged to 5/64 inch. It was never necessary in practice to make a hole

larger than $3/32$ inch to bring any instrument sufficiently into tune for minor adjustments to individual notes to cure the intonation problem. If holes once bored proved to be too large, they were filled in with wax and a smaller hole opened out in the wax with a pin.

Once the overall pitch of an instrument had been approximately corrected, alterations were then made to individual notes. All notes which would be affected by any one alteration were checked. Some examples of recorder tuning will show how necessary this was:

- (i) If B_4 was flat or sharp but C_5 and C_6 were in tune, the instrument was not altered since the B_4 could not be corrected without spoiling the other notes.
- (ii) If C_5 was flat and C_6 was flatter, all that was necessary to correct the tuning was to increase the ease of escape at hole 4 by undercutting its sides.
- (iii) If C_5 was flat but C_6 accurate (or sharp) it was necessary to have a less open hole and a shorter tube. Thus, hole 4 had to be filled in and moved up the tube. This could be done by extending the hole on the mouthpiece side without undercutting and by filling in on the opposite side rather more than was removed from the mouthpiece side.
- (iv) If G_5 and F_5 sharp were both flat and F_5 was accurate, the thumb-hole had to be opened by undercutting. If C_5 and F_5 were both flat and F_5 sharp was in tune, hole 2 had to be similarly opened out.
- (v) If the notes controlled by hole 8 and the bell were sharp, the fault could be rectified by pulling out the foot joint.

The undercutting and enlarging of holes was a comparatively simple process. Needle files of various cross sections were the principal

tools; of particular use were those of round, half-round, and oval section. Working slowly, taking care not to allow the file to damage the edge of the hole opposite the side which was being worked on, results had to be checked regularly.

Making a hole smaller was not so simple. Some filling in of the hole was necessary and for this purpose the old woodwind makers used a mixture of beeswax and tallow. A small flat tool was used in applying the mixture, and a piece of dowel rod just large enough to penetrate the bore was held tightly against the underside of the hole to prevent beeswax projecting into the bore. It was advisable to fill in more than was actually required and then to file the hole down to size.

Chapter 5

The influence of French tutors as source material

Before the beginning of the period 1690-1750 Virdung, Agricola, Praetorius, Mersenne, Trichet and Talbot had written about woodwinds, and their writings acted as a literary base for French authors in the first quarter of the 18th century. French names did not often appear amongst those who were first to produce tutors for their instruments; Borjon's Traité de la Musette (Lyon, 1672) (5) and Hotteterre le Romain's Principes de la Flûte (Paris, 1707) (42) for the musette and one-keyed transverse flute respectively were exceptions. After Borjon's treatise French publishing continued with Freillon-Poncein's oboe tutor entitled La Véritable Manière (Paris, c. 1700) (35) and the only other French tutors of importance issued before 1750 were Hotteterre's L'Art de Pré luder (Paris, 1719) (52), his Méthode pour la Musette (Paris, 1737) (70), and Michel Corrette's Méthode de la Flûte (Paris, c. 1735) (68).

Hotteterre le Romain was the most influential theorist of his time, and the following editions of his Principes de la Flûte were published in the 18th century.

- (i) Original edition published by Ballard, Paris, 1707.
- (ii) Reprints of this edition appeared in 1713, 1720, 1722, and 1741.
- (iii) An edition with additional material was published by Bailleux, Paris, c. 1760.
- (iv) Diderot and D'Alembert used quotations and summaries from Hotteterre in their articles on flute and recorder for their

Encyclopédie méthodique (Paris, c. 1756).¹

(v) Amsterdam editions cited by Fétis appeared in 1708, 1710, and no date.

(vi) Pirated (?) edition published by Estienne Roger, Amsterdam, 1708.

(vii) Dutch translation by Abraham Moubach (Amsterdam, 1728).

(viii) English translation of the flute section published by Walsh and Hare, London, 1729. This English translation was the source used for the flute section of the Modern Musick-Master series (London, 1731) and many similar books. The section on the recorder in this series, however, was not derived from Hotteterre.

(ix) A new translation into English was made by John Simpson and was known as The Compleat Tutor for the German Flute (London, no date). This translation was typical of the plagiarism of Hotteterre's work which extended well into the second half of the 18th century.

Hotteterre was known in Germany as the following references to his theoretical writings and practical activities show.

(i) A reference to the Principes de la Flûte occurs in Johann Mattheson's Neu-eröffnetes Orchester (Hamburg, 1713).

Someone with the name Hotteterre in France has taken the trouble to write two or three little treatises which an amateur will find a not unprofitable aid.

(ii) Hotteterre was mentioned as the author of the Principes in Johann Gottfried Walther's Musikalisches Lexicon (Leipzig, 1732).

(iii) An abridged version and frontispiece of the Principes was used in Johann Eisel's Musicus autodidaktos (Erfurt, 1738).

(iv) Quantz in his Versuch (Berlin, 1752) mentioned Hotteterre

¹ Lasocki, D. 'Diderot on the Recorder' Recorder and Music Magazine (London, 1967) p. 190.

as the author of a Principes de la Flûte and also as a distinguished performer.

Other instances of the influence of Hotteterre:

(i) J. C. Schickhardt (born c. 1680) played oboe and recorder at the Hamburg Opera. He wrote an oboe tutor (Op. 15) (64) and also a Principes de la Flûte (Amsterdam, no date) (55). Smith has shown that the printing of Schickhardt's Op. 15 (wrongly numbered by Lasocki¹ as Op. 5) was announced in 1715 and Op. 20 appeared in 1718.² Op. 12 must therefore have been issued by Roger before 1715. (Warner gives the date of publication as c. 1720). The tutor shows considerable influence from Hotteterre's Principes. Two of the fingering charts reproduced Hotteterre's table of cadences transposed into the treble clef but otherwise unaltered. Similarly transposed, the third chart also gave Hotteterre's fingering, except that the fingering for G₆ was given as ϕ 1-3 4-6- instead of

ϕ 1-3 4-67 The

instructions included directions on the tremblement, for which the sign 't' was given as an alternative to Hotteterre's cross (+).

It is strange that a tutor in so many respects similar to Hotteterre's was written so soon after its model and lodged with the same publisher. Perhaps one explanation lies in a sentence which prefaces the instruction page:

Those who wish to use this book in order to play the recorder are advised to apply themselves at the beginning to expressing the tongue stroke.

Schickhardt gave no indication of what he considered this tongue

1 Lasocki, D. 'A Newly Discovered Recorder Tutor' The American Recorder Vol. IX, No. 1 (New York, 1968) p. 14.

2 Smith, W. C. A Bibliography of Musical Works published by John Walsh, 1695-1720 (London, 1948)

stroke should be, but the second and third of the airs appended to the tutor had the syllables ti and ri above dotted quavers. The author was asserting (by implication) that French tongueing syllables tu and ru were suited only to dotted music and should not be applied to music other than dotted.

(ii) Three English tutors were the first printed instruction books for the recorder as it had been redesigned in France by the Hotteterre circle. In 1679 the London printer John Hudgebut published a booklet of tunes for the recorder entitled a Vade Mecum (7). This was followed in 1681 by The Most Pleasant Companion (9), probably the work of the younger John Bannister, and in 1683 by Humphrey Salter's The Genteel Companion (13). These three works closely resembled one another, and they all borrowed from Thomas Greeting's tutor The Pleasant Companion (6) the use of a tablature system under the staff notation of some of the pieces (see p. 61). The following points¹ indicate that these English tutors were intended for use with the newer form of the instrument:

(a) Pictorial evidence of the frontispieces of two out of the three tutors illustrated the ornamental turnery typical of the jointed recorder as opposed to the single-piece Renaissance type construction.

(b) Recorder fingering charts in the tutors were designed for the alto in F, which remained the basic solo member of the recorder family throughout the first part of the 18th century until the transverse flute took over its dominant role in woodwind performance.

1 Myers, H. W. 'Three 17th century English Recorder Tutors' The American Recorder Vol. VII, No. 2 (New York, 1966) p. 3

A table of Plaine notes and Pinches ascending

L. H.

Thumb

1st finger

2nd finger

3rd finger

R. H.

1st finger

2nd finger

3rd finger

4th finger

Notes

- (i) The cross indicated half-holing, i.e. 'pinching'.
- (ii) Banister and Salter used this 6-line tablature, but Hudgebut used a 7-line version.

(c) The corresponding Renaissance size to the alto in F was a recorder which sounded a tone higher, and instruction books for the Renaissance recorder (from Ganassi to Blankenburg) were written for the tenor recorder in C.

(d) Notation in these tutors was at pitch, whereas notation for the Renaissance instrument had normally been an octave lower than sounding pitch.

(e) The nature of the information about ornamentation and articulation indicates that French sources were well known in England.

(f) Fingerings given were more in accord with later Baroque fingering charts than with earlier ones.

Chapter 6

The tutors and what they contain

Fingering charts

A comparison of fingering charts for flute, recorder and oboe from French tutors c. 1700 and contemporary English tutors shows the following points.

(i) Fingerings of naturals remained relatively consistent between different charts for the same instrument, except in the case of early English recorder charts which call for the ring finger of the right hand to be kept down whenever possible to give physical support for holding the instrument. Hotteterre's flute fingering chart took over the use of this buttress-finger technique (see p. 64)

(ii) In many cases fingerings of enharmonic equivalents were differentiated. Hotteterre's flute chart indicated differences for fingerings of sharps and flats, e.g. G_4 flat and F_4 sharp, and the fingerings given implied the use of the pure thirds of meantone temperament. The charts showed that (a) sharps were flatter than in equal temperament, and (b) flats were sharper than in equal temperament. Poncein superficially paid more attention than did Hotteterre to enharmonic variants, but very often the fingerings given by Poncein for enharmonic notes were identical, e.g.,

$$C_6 \text{ flat} = \emptyset 123 -5- -, \text{ and}$$

$$B_5 \text{ natural} = \emptyset 123 -5- -.$$

The enharmonic niceties were registered for D_6 sharp and E_6 flat with Hotteterre, e.g.

$$D_6 \text{ sharp} = \emptyset 12- 456 -, \text{ and}$$

$$E_6 \text{ flat} = \emptyset 12- -56- -.$$

Flûte Traversière

ECHELLE de tous les tons et Semitons de la Flûte Traversière par musique et par tablature.

Notes de musique

Figure de la Flûte

Tablature

Suite

Les lignes au-dessus d'un dursey de, ou au-dessous d'un dursey de, pour représenter l'extension de la Flûte.

Jacques Hotteterre, Principes (Paris, 1707) Appended fingering chart for the one-keyed transverse flute.

Note the use of buttress-finger technique (see (i) p. 63).

But not so with Poncein, where D_6 sharp and E_6 flat both = \emptyset 12- 456 7. The enharmonic differences for C_6 sharp and D_6 flat were registered with Poncein, e.g.,

C_6 sharp = \emptyset 123 4-- -, and

D_6 flat = \emptyset 12- 4---.

Hotteterre gave both C_6 sharp and D_6 flat = \emptyset 12- 4---.

Such distinctions, however, were not consistently carried out, and the statement, ' B_4 flat is done like A_4 sharp' suggests that enharmonic differences were only half-heartedly observed. The English translation of Hotteterre's Principes (London, c. 1729) (58) and the Modern Musick-Master (London, 1730) (59) adopted tempered tuning in their fingering charts, and later tables in Corrette (65) and Diderot also showed this change. Quantz (85) went to great lengths in this matter, and suggested alternative fingering for virtually every enharmonic pair of notes. While in Paris on a visit in 1726 he introduced the use of an extra key for E_5 flat in addition to the then standard one for D_5 sharp.

(iii) Despite the differences in format between the fingering charts of Poncein (see p. 67) and Hotteterre (see p. 66) the differences in actual recorder fingering suggested were few.¹ These may be summarised as:

G_4 sharp or A_4 flat	Hotteterre	0 123 45 6 -
	Poncein	0 123 45- 7
C_4	Hotteterre	0 123 --- 7
	Poncein	0 123 --6 7
D_6 sharp or E_6 flat	Hotteterre	\emptyset 12- -56 7
	Poncein	\emptyset 12- --6 7

In addition to fingering charts Hotteterre's Principes contains

¹ Lasocki, D. 'Freillon-Poncein, Hotteterre, and the Recorder'

Echelle de tous les tons et Semi-tons de la Flûte à Bec, par musique et par tablature.

Finie 1^{re}

Notes de musique

Figure de la Flûte

Tablature

The musical notation shows a scale from C to C with accidentals. The tablature shows fingerings for each note. A diagram of the recorder is included.

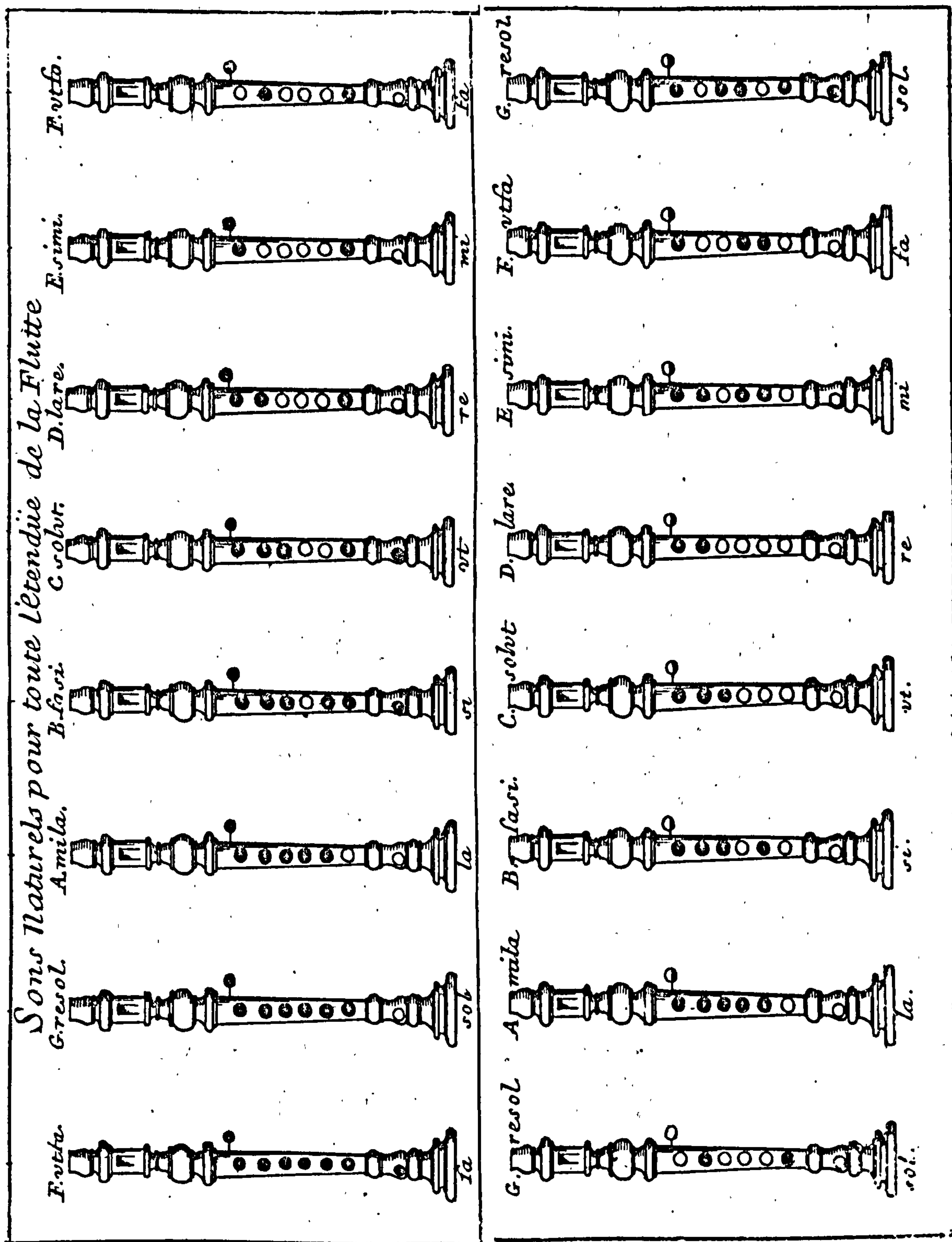
Les lettres au-dessus de la tablature sont adjointes pour servir de guide à la Flûte.

Suite

The continuation of the musical notation and tablature for the recorder scale.

Jacques Hotteterre, Principes (Paris, 1707) Appended fingering chart for the recorder.

(Cf Poncein's tablature for recorder on p. 67).



Freillon-Poncein, La Véritable Manière (Paris, 1700)

Tablature for recorder.

verbal descriptions of how to produce notes on the flute, recorder and oboe, and these descriptions give a few fingerings which are extra to those illustrated on the charts. His description of recorder fingering mentions recorders which have double notes to aid the production of the notes F_4 sharp, G_4 sharp, and C_6 sharp. '7' is a double hole on both the Poncein and Hotteterre charts, e.g.,

$$F_4 \text{ sharp} = 0 \ 123 \ 456 \ 7.$$

On the other hand, '6' is a double hole on the Hotteterre chart, e.g.,

$$G_4 \text{ sharp} = 0 \ 123 \ 45- \ 7 \text{ (Poncein), but}$$

$$G_4 \text{ sharp} = 0 \ 123 \ 45\phi - \text{ (Hotteterre).}$$

When different fingering is given for the same note, this seems to suggest that hole 6 is only a double hole on the Hotteterre charts. However, A_5 sharp = $\phi \ 123 \ 4-\phi -$ indicates that 6 is a double hole on both Poncein and Hotteterre charts. The fact that 6 is indicated as ϕ in the chart notation for A_5 sharp need not alter this reasoning since 6 would be half-holed, and the notation is not sufficiently precise to imply necessarily the existence of a double hole on the instrument.

(v) Freillon-Poncein did not give tables of fingerings for trills, and this seems to have been one of Hotteterre's original contributions to tablature notation in woodwind tutors. Another of his important innovations was the use of black and white circles on 7/8 parallel lines to indicate fingerings. Poncein was less exhaustive than Hotteterre in codifying trills; he verbally described the trills necessary for cadences in all keys, giving fingerings for the first octave only, and leaving the player to discover for himself appropriate fingerings for all other trills. The small differences¹

¹ Lasocki, D. 'Freillon-Poncein, Hotteterre, and the Recorder'

between Hotteterre's table of trill fingerings and Poncein's description are as follows:

B_4/A_4	Hotteterre Poncein	Lower 7, then trill with 5 Only trill with 5
B_4/A_4 sharp	Hotteterre Poncein	Lift 5 and 7, then trill with 4 Lift 5 only, then trill with 4
G_5 sharp/ A_5 sharp	Hotteterre Poncein	Trill with 5 Trill with 4 and 5

(vi) Contemporary English writers provided many more ornamentation charts than their French counterparts, although they simply illustrated French performing practices of the trill and the mordent. They devised charts also for the 'double shake' and the 'slur and beat'. These were not really separate ornaments (both sounding identical to the normal trill) but charts were invented to solve problems of notating certain fingering patterns in tablature. The double shake was a form of shake only because the ornament terminated with the trilling finger off the hole and the ornament was only found on G_5 where the auxiliary (A_5) was on the opposite side of the register break. The slur and beat was also found only on certain notes of the recorder. The comma alone could not be used to indicate a beat or trill on notes whose auxiliaries were cross-fingered because the motion of the fingers was too complex to be notated with one sign. The fingering of the auxiliary was written first and slurred to the fingering of the trilled notes. Hotteterre incorporated this form of notation into his fingering charts (see p. 70). Here is evidence that woodwind trills began on the upper auxiliary.

Tablature notation indicates that early players expected a subtlety of intonation to result from the use of these fingerings for the mordent and the trill. There was a numerical preference

Echelle de toutes les Cadences ou tremblemens de la Flute TRAVERSIERE

The chart displays two systems of cadences for the transverse flute. Each system consists of a musical staff with notes and a corresponding staff with fingerings. The first system, 'Cadences sur le ré', shows fingerings for notes from C to B. The second system, 'Cadences sur le si', shows fingerings for notes from C to B. The fingerings are indicated by numbers 1 through 7, and the notes are labeled with letters (C, D, E, F, G, A, B) and accidentals. The chart illustrates various trill patterns and fingerings for each note, demonstrating the use of the upper auxiliary key.

Jacques Hotteterre, Principes (Paris, 1707) Appended fingering chart for one-keyed transverse flute.

This type of tablature shows that woodwind trills began on the upper auxiliary at this period.

in the tablature for the semitone mordent. Often the tutors took advantage of the flexible intonation of woodwinds by giving sharp fingering for the mordent to make the rapid alternation of fingerings for notes of a trill easier to play at speed, and some fingerings sounded more like fingered vibrato rather than true mordents. For the A_4 sharp/ G_4 sharp trill the regular fingering for A_4 sharp was used to start the trill, but for the rapid alternation of the notes an easier fingering was suggested. While the principle was a sensible one, in practice many of the fingerings suggested by Hotteterre were unusable. For example, in the case of the E_5 flat/ D_5 trill the upper note of the trill (after the normal E_5 flat anticipation had sounded) was fingered as for E_5 natural!

(vii) Confusion arose over terminology amongst English and French string and woodwind tutors over the appropriate nomenclature of the trill and the inverted mordent.

	<u>Trill</u>	<u>Inverted mordent</u>
French term:	Tremblement	Battement
English term in string tutors:	Shake	Beat
English term in recorder tutors:	Beat	Shake

This confusion possibly arose from the English obsession with tablature. Playford, Simpson, and Mace in their writings were concerned with stringed instruments. Putting a finger down on a stringed instrument shortens the string and produces a tone of higher pitch. Putting a finger down on a woodwind instrument, however, lengthens the tube and produces a tone of lower pitch. In these terms it is easy to see how thinking of the motion of the fingers rather than of the notes produced caused the confusion when authors of the recorder tutors gave names to their ornaments.

Having compared charts and pin-pointed some differences between them there remain some problems which are unanswered.

(i) To what extent did authors copy existing material, and to what extent was their work the result of personal experiment and verification?

(ii) In order to gauge the currency of early tutors it would be necessary to know the actual numbers of tutors published and to assess their dissemination. At present isolated library locations give no accurate picture of their popularity.

(iii) There are some instances of direct copying. In Wright's tutor of 1735 the instructions were pirated verbatim from an anonymous tutor, but they were prefaced by an extra page with a completely new fingering-chart; it was only the second English chart which did not make use of 'supporting finger' technique. Some authors indulged in overt plagiarism while others concientiously acknowledged their sources, the exact extent of 'piration' is difficult to assess and its perpetration is perhaps over-estimated since we just don't know whether or not permission was given for writers to use already published material in specific cases. The authors of large-scale 'general' theoretical works often relied on extracting material from existing treatises, e.g. Diderot's section on the recorder in his Encyclopédie was highly derivative from Hotteterre. In general, authors c. 1700 did the majority of the original experimentation while later writers lent heavily on their findings, without troubling too much about corroborating details for themselves.

(iv) In making up fingering-charts experimentation may have been done in one of several ways:

(a) Through experimentation and codification on one instrument.

(b) Through experimentation and codification on several instruments.

The charts represented mean results in terms of intonation.

(c) Through a combination of experimentation and reference to existing charts for verification.

Which of these varying degrees of sophistication in compiling fingering-charts was employed in any particular case it is difficult to tell, but the variety of fingering suggested for the same notes seems to indicate that considerable experimentation took place at least within national schools.

Tonguing

Tonguing was used in the early 17th century on woodwinds (a) to make different sounds, and (b) to articulate quick notes. In present practice tonguing may be made deliberately hard or soft, but each tongued note is expected to sound exactly like all others in a particular passage. No evidence exists to suggest that all early tongueings should sound alike. Indeed, variety of attack was intended to produce an appreciable difference in the sound of a note. 16th century discussions of tonguing included descriptions of the smoothness, sharpness, or harshness of various tongueings. Freillon-Poncein wrote:

... in all measures where there are evenly moving semi-quavers or quavers, the notes should be tongued tu tu ru tu, to make the music more agreeable to the ear.¹

Hotteterre advocated the use of tonguing to

make the performance more pleasant and to avoid too much uniformity in tongue strokes.²

French and other tutors neglected the important factor of breath pressure to be used with tonguing. The tongue stroke was a retraction of the tongue from the teeth allowing free flow of breath. Hotteterre stated that:

Tongueings are more or less articulated according to the instrument played; for example, softened for the transverse flute, more marked on the recorder, and pronounced much more strongly on the oboe.³

1 Freillon-Poncein, La Véritable Manière ... (Paris, c. 1700) p. 15

2 Hotteterre, J. Principes (Paris, 1707) p. 21.

3 Hotteterre, J. op. cit. p. 27.

Many articulations were described in early woodwind tutors, and of these the principal ones were:

(i) The simplest kind of articulation was referred to as the 'head breath' by Ganassi and coulante or muette by Mersenne. It consisted of blowing into the instrument, lips set, without the use of the tongue.

(ii) The single tongue was the basic tongueing of all woodwinds. Produced by the pronunciation of consonants T or D to which different vowels were added; Hotteterre mentioned Te and Tu.

(iii) Five different kinds of rapid articulation varied between tongueings made at the tip of the tongue and those produced at the rear of the mouth, somewhat similar to modern double tongueing. Houle has discussed these tongueings in detail.¹

(iv) The double tongueings described by Freillon-Poncein and Hotteterre (Tu ru) made use of the 18th cent. French uvular R. The present R is closer to the English K and G sounds than to the dental R. Lasocki, with the aid of the Danish phoneticist, Nyrop, has shown that the French R of Hotteterre's time was not like the modern French R, but was produced with the aid of the tongue.² In the flute tongueing instructions of the Modern Musick-Master and the Compleat Tutor for the German Flute (both of which were free translations of Hotteterre) tongueing examples were rendered t t' r t' r t etc. In the light of Nyrop's comments it seems logical for these English translations of Hotteterre to have used R for articulation as tongue strokes [coups de langue]. Quantz also implied

1 Houle, G. 'Tongueing and Rhythmic Patterns in Early Music' The American Recorder Vol. VI No. 2 (New York, 1965) pp. 4 - 13

2 Lasocki, D. Eng. trans. Hotteterre's Principes (London, 1968) p. 19


the use of the lingual dental R.¹ Educated Germans spoke French and Quantz studied with the French flautist Buffardin in Dresden, no doubt learning some articulation from his master. The use of tongueing syllables was abandoned by French flautists c. 1735 although the German school maintained a tradition of tongueing.

The basis of all articulation patterns in France c. 1700 was tu ru. Tu was pronounced sharply with the tongue touching the teeth, while ru was pronounced with the tongue near to the teeth. The vowel sound was of relatively little importance. The ru syllable was prolonged, and pronounced on the first of a long-short pair of notes. The articulation pattern was always considered as tu ru, and at the start of a series of unequal pairs the articulation began:



A different emphasis was sometimes given to the articulation pattern tu ru, as in:



In this form the articulation was used as a rudimentary form of double tongueing. Hotteterre quoted exceptional passages in 2 and 3 times in which tu ru could be long-short; he used it on equal notes in examples of semiquavers on the same line and leaping, and in figures of the type .

1 Quantz, J. J. op. cit. Chap. VI Sect. 2 para. 2

2 Hotteterre, J. Principes (Paris, 1707) p. 26.

The diversity of early tongueing syllables was necessary because of the variety of instruments for which these tongueings were devised. Ganassi wrote for the recorder, Freillon-Poncein for the oboe, and Hotteterre for the transverse flute. Different tongueings were also necessary because their use clarified rhythmic groupings of notes. Double tongueings were applied to pulses and sub-pulses of the beat. It is easy to get the impression from early French tutors that only such tongueings were differentiated, but some examples from Freillon-Poncein's oboe tutor illustrate the application of double tongueing patterns to beats grouped in bars:



These examples contrast with Hotteterre's advice:

Tu is the most used, being employed for semibreves, minims, crotchets, and for most quavers.¹

The possibilities of single tongueing were not discussed in most early tutors. On the oboe, the articulation tu ru produced a marked difference on the initial attack of a note. Freillon-Poncein's instructions showed that the kind of difference in articulation which clarified the groupings of the pulses was also desired in

1 Hotteterre, J. Principes (Paris, 1707) p. 21

clarifying the grouping of beats. The flexible single tongue, not double tongueing, was the means of obtaining such clarification in slower tempos.

Performers of the 16th and 17th centuries based articulation on the beat and its sub-divisions. Dance steps were metrical groups of beats, and to appreciate the bar structure of a dance it was essential to know the step of the dance. Houle has reconstructed some Baroque dances using the instruction books of Arbeau, Negri, Caroso, and others, and through knowledge of the physical actions of the dance has analysed the measure of the accompanying music. As a result, Houle has demonstrated how the principal articulations were applied to the dance music which many woodwind players were involved in providing for the Court.¹

1 Houle, George. 'Tongueing and Rhythmic Patterns in Early Music' The American Recorder Vol. VI, No. 2 (New York, 1965).

Tongueing, articulation and their implications for rhythmic alteration - notes inégales

At this point it is worth mentioning some reasons why keyboard theorists came to define a convention concerning the performance of notes inégales and to show in which ways their considerations differed from the writings of woodwind theorists on this topic.

The nature of notation is such that, if it remains 'simple' and intelligible to the eye, it cannot express rhythmic refinement. As Loys Bourgeois said in Le Droit Chemin de Musique:

... unequal notes are used to avoid rough discords and to give the music more grace.¹

In keyboard treatises (Couperin and Diruta) notes inégales were encouraged by a form of fingering which identifies the intended expressive content of individual notes with particular fingers. A comparison of the treatises shows that theorists were not consistent in their assessment of the strength of relative fingers. Empirical methods were favoured by early writers: some have said that the first note of a pair is shorter, while most have said that the second is shorter. 18th century French players realised that either is possible and that there exists the possibility of deliberate choice (couler as used by Couperin to indicate the reverse of the more usual lourer). One point of the keyboard convention of the notes inégales was that the notes were paired or grouped, and the effect required could well be smooth and graceful rather than harsh and angular.

1 Bourgeois, Loys. Le Droit Chemin de Musique (Geneva, 1550)

Hotteterre's rules for tonguing the inéale were mostly straightforward, and in Chapter 8 of his Principes de la Flûte he gave this information:

You will do well to note that you must not always play quavers equally, but that you must, in certain time signatures, make one of them long and one short; which is also ruled by their number. When the number is even, you make the first one long, the second one short, and so on for the others. When it is odd, you do exactly the opposite: that is called 'pointing'. The time signatures in which this is most usually practised are 2 time, 3 time and 6/4 time.

You must pronounce tu on all the quavers in certain time signatures, e.g. C, 3/8, and 4/8 and only use ru for the semiquavers, i.e. the quavers correspond to crotchets, and the semiquavers to quavers in this sort of time signature, as well as in 6/8, 9/8, and 12/8 times. It is also necessary in these time signatures to take the quavers equally and 'point' the semiquavers.

... all triple times correspond to 3 time, and ... in 3/2 time the minims correspond to crotchets and the crotchets to quavers: which is why you must 'point' the crotchets in this time signature, following the explanation which I have given on the subject of quavers previously.

Some further information about the inéale was given by

Hotteterre in L'Art de Préluder (Paris, 1719) Chap. 11:

Slow 4 time is marked with C. It is beaten to four, usually very slow beats. The quavers are equal: the semiquavers are pointed, i.e. one long and one short. It suits preludes or first movements of sonatas, Allemandes, Adagios, Fugues, etc.

Barred C is marked with ¢. The quavers must be equal in regularity unless the composer dots them. Italians scarcely use it, except in what they call Tempo di Gavotta and Tempo di Cappella, or Tempo alla breve. In this last it is beaten to two quick beats. Its normal tempo is four quick beats or 2 slow beats.

2 time is marked by a simple 2. It is used in Marches, Bourrees, Gavottes, Rigaudons, Branles, Cotillons, etc. The quavers are pointed. It is unknown in Italian music. It is normally lively and staccato.

3/2 time. The crotchets are pointed like the quavers in the others. It is used for Graves in sonatas, etc.

Simple triple time is marked with a 3 or sometimes 3/4. The quavers are almost always pointed in French music. It is used for Passacailles, Chaconnes, Sarabandes, Italian style Courantes, Menuets, etc. When the quavers ~~jump~~ and/or are *are quitted by leap*

mixed with semiquavers, they are played equal. It is sometimes very fast and sometimes very slow.

3/8 time. This suits slow ~~Airs~~, ~~like~~ Canaries, Passopieds, etc. The quavers are equal, and the semiquavers pointed. Its true speed is lively.

6/4 time. The quavers are pointed. You use it in Loures, Giges, etc. You rarely see it in Italian music. Mostly it is lively.

9/8 time. The quavers are equal and the semiquavers pointed. It is used in sonatas, and above all in Giges. It has only been used in France for ~~some~~ ^{a short} time.

6/8 time. The quavers are equal and the semiquavers pointed. It is particularly suitable for Giges.

12/8 time. The quavers are equal, etc. It suits Giges above all. Usage is fairly recent in France. You sometimes meet three quavers in a beat in C or C time, which is equivalent to this.

2/4 time. The quavers are normally equal, and the semiquavers pointed. Some composers mark it 4/8. It is really only a time signature of 4 quick beats cut in two.

The instructions above for pointing semiquavers in 6/8 and other compound times were possibly unique to flute performance since inequality at such high speeds was hardly feasible technically on stringed or keyboard instruments. The inclusion of Allemandes in Hotteterre's list of pieces in slow 4 time with pointed semiquavers differs from F. Couperin's practice; Allemandes were not normally inégaie. The references to Italian music suggest the way it was performed by Hotteterre and his circle c. 1720; some rules about inequality by Michel Corrette incidentally show the extent of Italian influences in France c. 1735.¹

The four-time C or C is much in use in Italian music, as in the Allemande, Adagio, Presto and Allegro of sonatas and concertos. You must play the quavers equal, and point the semiquavers two by two. They are sometimes played equally in Allegros and Prestos of sonatas and concertos.

¹ Corrette, M. Méthode de la Flûte (Paris, c. 1735) pp. 4 - 6

The 2/4 or 2/8 is the two-time of the Italians. It is often used in the Allegro and Presto of sonatas and concertos. You must play the quavers equal, and point the semiquavers. They are also sometimes played equally in sonatas.

The 9/8 is rarely found in French music, but often in Italian music, as in Giges, Allegros and Prestos. The quavers are taken equally, and the semiquavers must be pointed.

The 12/8 is found in Italian, German, French and English music, in four-time Giges. The quavers must be played equal, and the semiquavers pointed.

Hotteterre's rules for tonguing lapse into obscurity with his explanation of the reverse tongueing, which he stated should be used

when there are two quavers intermixed with crotchets, or else two semiquavers with quavers. That is done for a greater¹ sweetening or softening, and it is taste which decides it.

What rhythm should be used in such passages is not clear. The main effect of the tu ru tongueing is of grouping the notes in twos, since tu may not be tongued without interrupting the tone, and ru (dental or uvular) may not be made except as a continuation of a previous sound. Employing different rhythms, $\square \square \mid$ could be rendered as $\square \square \mid$ or as $\square \square \mid$. If it is assumed that Hotteterre intended the reverse tongueing to be used to give a lourer effect, its usefulness is best demonstrated in graceful movements. It may, however, be preferable (as Hotteterre suggested) to reserve the use of reverse tongueing for fast semiquavers - the equivalent of modern double tongueing. A similar statement was made by Freillon-Poncein when, after having given the equivalent of Hotteterre's pointée tongueing for all fast notes, he mentioned that when eight (or more) fast notes pass very quickly, they should be given this opposite tongueing. At a later point, Poncein stated that all groups of only four quavers or crotchets should be tongued pointée, and then mentioned that the opposite tongueing should be used in very quick

¹ Lasocki, D. Eng. trans. Hotteterre, J. Principes (London, 1968) p. 62

measures; this may have been what Hotteterre had in mind when he was seeking a greater sweetening if the usual tongueings appeared harsh. But the word 'adoucissement', as well as his following statement that such considerations should be taken with all kinds of measures, seems to indicate that Hotteterre wasn't referring to sheer speed. Freillon-Poncein's original statements are also somewhat confusing when one reads that certain bars in menuets (70 - 80 bars per min. according to contemporary sources) should be tongued pointée. The question naturally arises: How fast was 'very quick'? Reverse articulation cannot be tongued appreciably faster than pointée, and 80 bars per min. would seem rather fast. In L'Art de Préluder Hotteterre gave the quavers dotted for Bourrées and Rigaudons, both of which were quick dances. Reverse tongueing at high speeds produces a slightly short-long articulation which could not be called pointée. This contradiction between theory and practice cannot be resolved except by dismissing as inaccurate the writings of Freillon-Poncein or Hotteterre, or else by assuming that Poncein could tongue this reverse articulation satisfactorily at exceptionally high speeds.

Freillon-Poncein mentioned tongueing triplets as tu ru tu, a device which is pleasant but cloying if not interrupted by alternative tongueings. This tongueing was specially applicable to Giges, and when used in slower movements it produced an added sweetness.

Freillon-Poncein demonstrated and Hotteterre wrote about his preference for tongueing galloping figures such as ! \sqcap ! tu tu ru tu, rather than pointée. When ^{the quavers} they belonged to the following crotchet on the other hand, dotting them gave more the sense of anticipatory beats.

The use of pointée tongueing was indispensable in certain dances

such as Rigaudons, Bourrées, Gavottes, Marches, etc. and in movements marked Gai, Légerement, etc. where the notes were already dotted or moved diatonically in quick tempos. Interpreting Hotteterre's reverse tonguing as lourer was suitable for movements marked Gracieusement, Musette, Tendrement, etc.

Woodwind tutors gave more detailed information on articulation than any other contemporary sources. Continual dotting at high speeds may have been a speciality of woodwind performance. Hotteterre and Freillon-Poncein wrote more explicit instructions than were to be found in contemporary theory books and clavecin tutors possibly because they wrote for the enthusiastic amateur rather than for persons with teachers who could demonstrate le bon goût. While the technique of a habitual pointée was easy to perform on the recorder, keyboard players had more difficulty in performing it in a natural-sounding way; the keyboard player regarded the inégaie rather as an expressive device than as a standard articulation. The present-day keyboard accompanist is perhaps over-*busy* about *ensemble* in playing for flutes in French music of this period. I feel that we should aim for beat-co-ordination ^{between the players}, and that ^{content of a regular} flute rubato within the beat should be cultivated.

The performance of the inégaie based on woodwind tutors may be summarised as follows:

In any time signature there are three main ways of playing the notes of the shortest time value.

(i) The notes may all be played equally. This method was called détacher and was employed in passages where there were many large leaps (especially arpeggio figures) and many notes ^{of the same pitch.} ~~on the same line.~~ In passages which moved by step, this inequality had to be indicated by dots over the notes - not staccato marks in this case - or by the words notes égales, détachez or martelées.

(ii) The first note of each pair of notes could be played slightly longer than the second. This effect was known as lourer and was used in passages which moved in steps or small leaps. The actual degree of inequality varied according to context. The shortest notes of any time signature could be slightly unequal, unless they went too fast for this to be possible. In 2, 3 and 6/4 the degree of inequality was made rather greater. This lourer effect was referred to as 'pointing' by Hotteterre.

(iii) In passages in which the first note of a pair had a dot after it, the first note was played very much elongated. This was termed pointer or piquer, but the terms pointer, piquer, lourer, etc. came to indicate any sort of inequality (see ref. to dotted notes for further elaboration of this point on p.132).

In very quick tempi, notes had to be played equal, or virtually so. In contrast to its use with violins and harpsichords, it is important to note that inequality was mostly used without slurring. Pairs of notes to be played unequal did not require to be written and/or played slurred; Hotteterre at no point stated that the marking of slurs affected inequality. Slurs were treated as ornaments.

Hotteterre's piece 'Les Tourterelles' from his Première Suite de Pièces à deux dessus is of interest in this respect because its title was an imitation of the use of the articulation pattern tu tu ru, e.g.



Notes slurred in pairs which would normally have been played unequal were still played unequal, but a little less so than usual. Three note slurs were played only slightly unequal. Groups of four or more notes under slurs were played virtually equal.

The inequality and articulation appropriate to each note value in various time signatures, based on French woodwind tutors of c. 1700 and with examples from Hotteterre le Romain's L'Art de Préluder.

Notes

(i) Where there were two categories of articulation for a particular note value, category (a) indicates contemporary interpretation when the notes move conjunctly or by small leaps, and category (b) indicates performance when notes are repeated or move by large leaps.

(ii) The musical examples taken from Hotteterre's L'Art de Préluder (Paris, 1719) Chapter 11 were often very brief, but demonstrate a broad spectrum of contemporary operatic and sacred music with which Hotteterre must have been familiar. Of special interest are his transcriptions of fragments drawn from Corelli's Violin Sonatas Op. V.

(Are we to assume that inequality would be applied to Italian music in France at this time?)

(iii) The tonguing syllables tu' ru applied to quavers produced the effect



in performance. The syllables tu ru'

applied to quavers produced the effect



tu tu ru' tu

(iv) 'Slightly unequal' as a degree of inequality is taken to indicate approximately triple division of the beat. For example



played slightly unequal is equivalent to



'Unequal' indicates

approximately quadruple division of the beat. For example



played

unequal is equivalent to



or even



(v) The musical examples have been transcribed at pitch but with the G clef on the second line instead of on the first. The Corelli excerpts appeared in ^{the former} this clef in the original ~~Ms.~~ printed edition.

(vi) The original (sometimes inadequate) titles of extracts have been retained.

(vii) Suggested rhythmic interpretations of inequality are indicated in square brackets for some of the musical examples, but by no means all of Hotteterre's examples demand inequality in their performance.

Time signature: C

Notation	Performance	Articulation
Semibreves	Equal	tu
Minims	Equal	tu
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

Illustrations of inequality and articulation with

Semiquavers (a)



tu' tu ru' tu ru' tu ru' tu


Semiquavers (b)



tu' ru tu' ru tu' ru tu' ru

Musical examples:

Roland Recitative



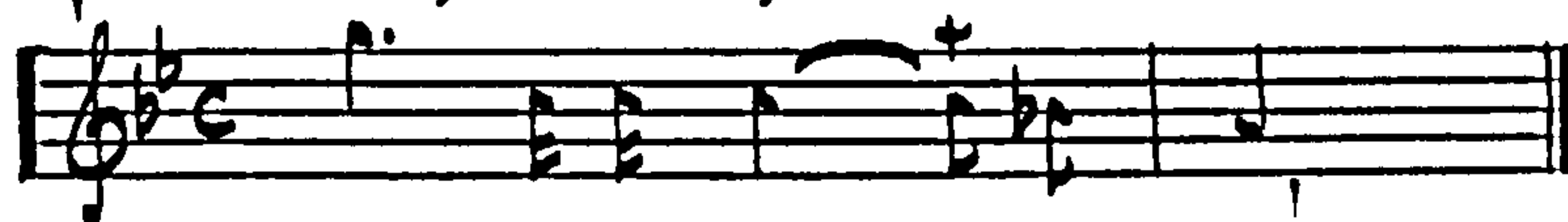
Ah! que mon coeur est a - gi - te!

Campra, Air de Mqtet, Book II



Flo-re-te pra-ta fron - de - te,

Clerambault, Cantata, Recitative



Loin de la jeu - ne Hé - ro

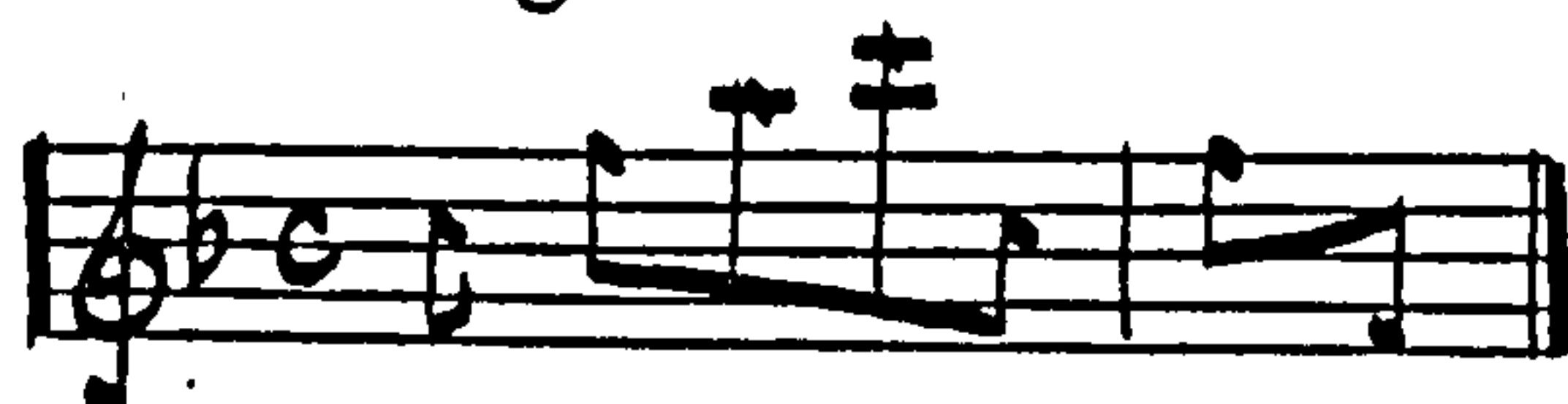
Corelli, Sonata Op. 5, Prelude

Largo



Corelli, Sonata Op. 5, Allemande

Allegro



Time signature: C

Notation	Performance	Articulation
Semibreves	Equal	tu
Minims	Equal	tu
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

Illustrations of inequality and articulation with semiquavers (a) and (b) as for C time (see p. 88).

Musical examples:

Stuck, Livre I

Tempo di Cappella



Chan - tons, Chan - tons les doux trans - ports

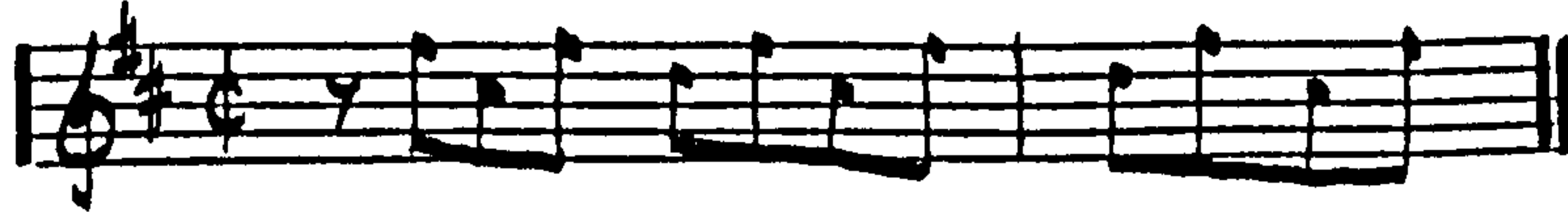
Corelli, Sonata Op. V

Tempo di Gavotta



Corelli, Sonata Op. 3

Tempo di Gavotta



Clerambault, Livre II



Vous qui crai - gnez une ar-deur in - qui - e - te

Lully, Alceste

2 temps lents

Lully, Armide

Vite, 4 temps legers



Pour-sui-vons, Pour-sui-vons jusqu'au tre-pas

Time signature: 2

Notation	Performance	Articulation
Minims	Equal	tu
Crotchets	Equal	tu
Quavers (a)	Unequal	tu ru'
Quavers (b)	Equal	tu

Illustrations of inequality and articulation with

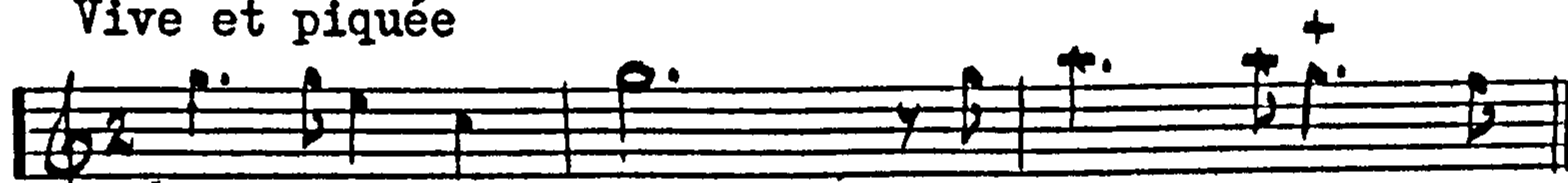
Quavers (a) 
tu' tu ru' tu ru' tu ru' tu

Quavers (b) 
tu tu tu tu tu tu tu tu

Musical examples:

Phaéton, Overture

Vive et piquée


[Quavers: Category (a)]

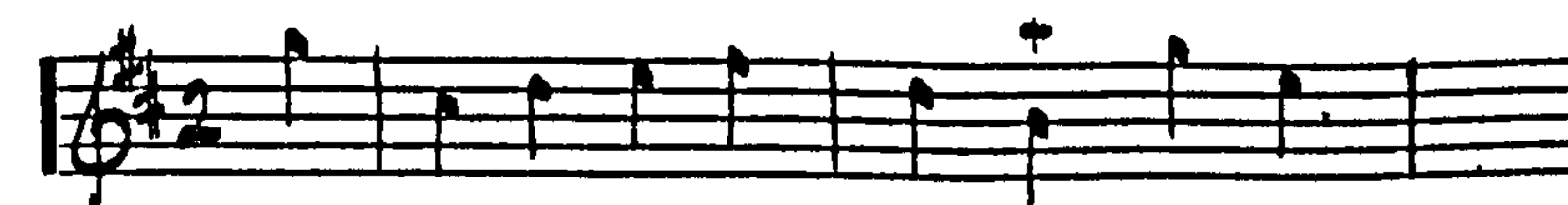
Phaéton, Entrée



Phaéton, Marche



Phaéton, Bourrée



Roland, GavotteL'Europe Galante, Rigaudon

Time signature: $\frac{3}{2}$

Notation	Performance	Articulation
Semibreves	Equal	tu
Minims	Equal	tu
Crotchets (a)	Unequal	tu ru' (with exceptions)
Crotchets (b)	Equal	tu' ru

Illustrations of inequality and articulation with



tu' tu ru' tu ru' tu



tu' ru tu' ru tu' ru

Musical examples:

Phaëton, Sommeil de Protée



Persée



Phaëton, Duo



Hé - las! u-ne chai - ne si bel-le

$\frac{3}{2}$ also notated as:

Bernier, Air de Cantate



Vous par qui tant de mi - se - re - ables

Time signature: 3 or $\frac{3}{4}$

Notation	Performance	Articulation
Minims	Equal	tu
Crotchets	Equal	tu
Quavers (a)	Unequal	tu ru'
	Slightly unequal in $\frac{3}{4}$	tu ru'
Quavers (b)	Equal	tu

Illustrations of inequality and articulation with

Quavers (a) 
tu' tu ru' tu ru' tu


Quavers (a) in $\frac{3}{4}$ time 
tu' tu ru' tu ru' tu

Quavers (b) 
tu tu tu tu tu tu

Musical examples:

Armide Passacaille

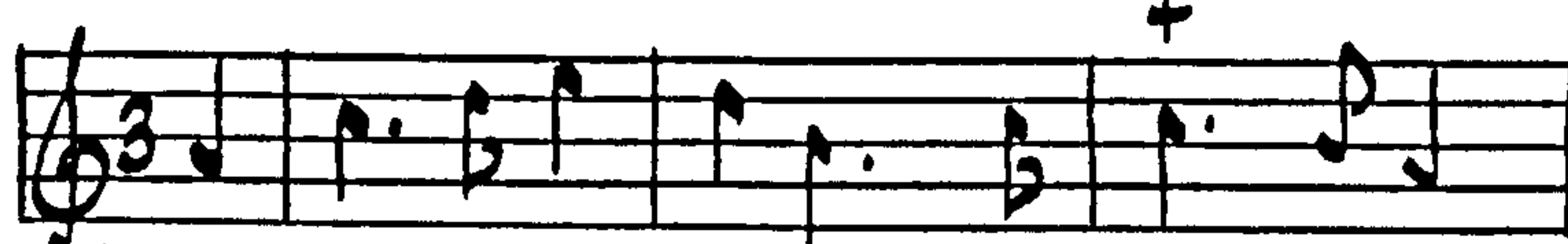
Grave 
[Quaver: Category (a) in $\frac{3}{4}$]
Phaëton, Chaconne

Gai 
Issé, Sarabande
Lent



Persée, Air de Ballet

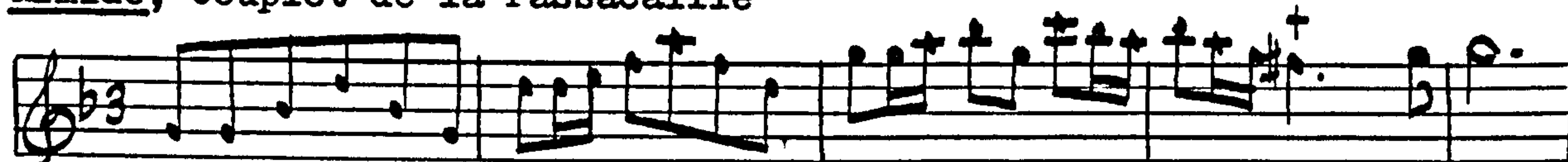
Gracieux

Démons de Thésée, Air

Vivement

Roland, Menuet

Gai

Armide, Couplet de la Passacaille

Example of 3 time with croches égales. There is equality here because:

- (i) the quavers move by leap,
- (ii) the quavers are intermixed with semiquavers, and
- (iii) the quavers occur on repeated notes.

Two further examples of croches égales, this time in Italian music:

Corelli, Courante

Allegro

Corelli, Sarabande

Largo



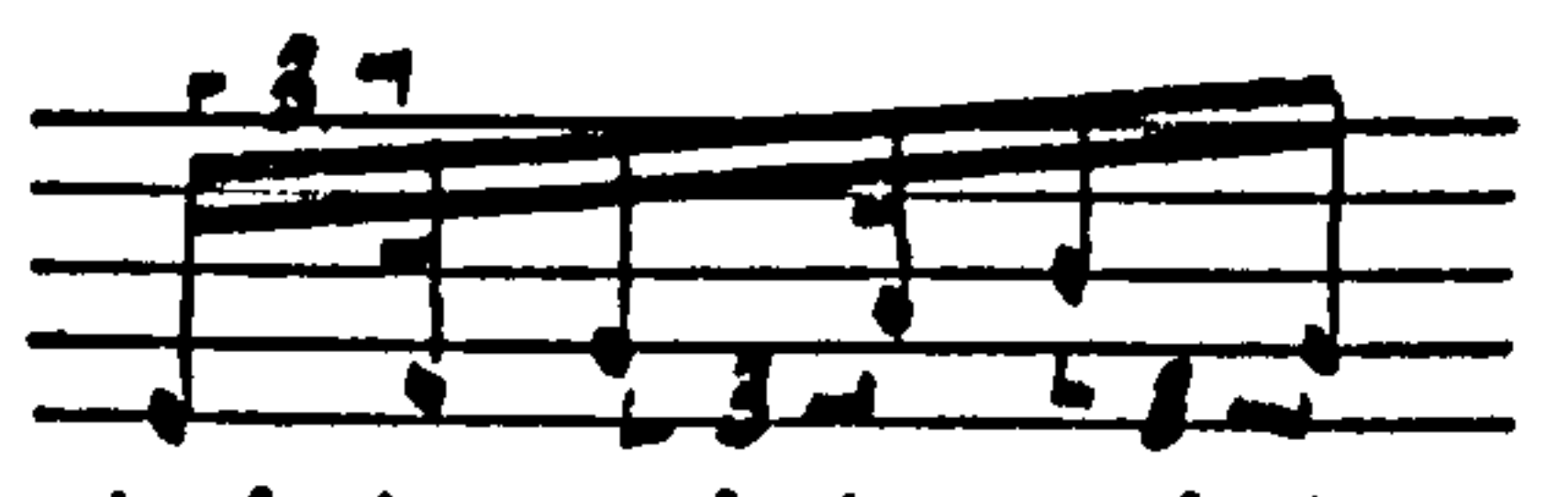
Note: Bases of sarabandes which have continual quaver motion are regularly played égale.

Time signature: 3/8

Notation	Performance	Articulation
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

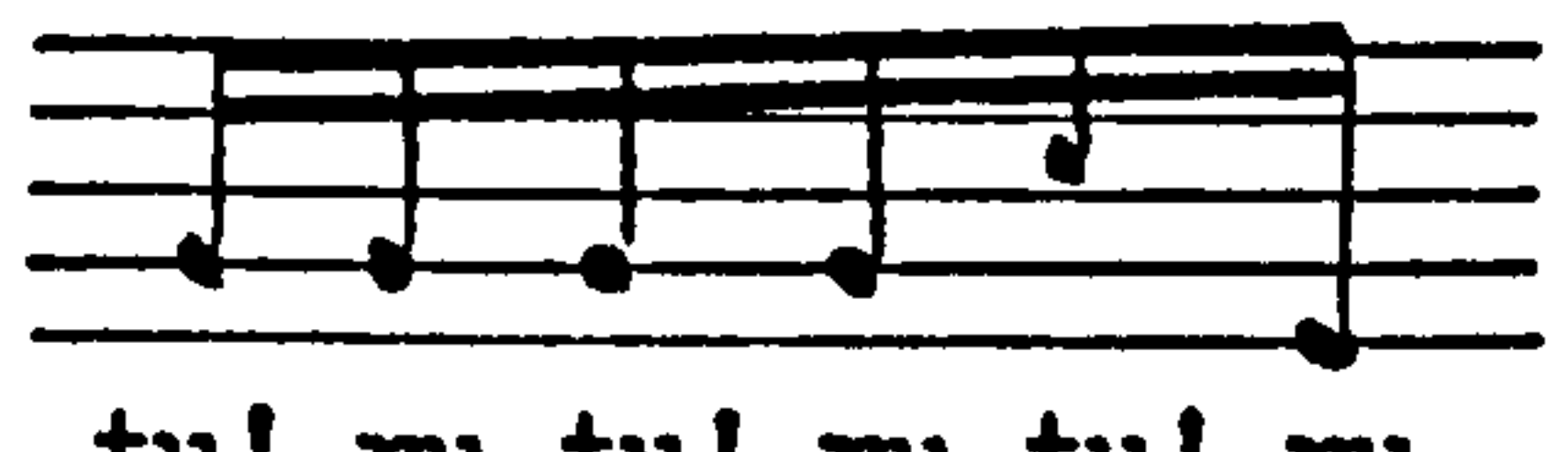
Illustrations of inequality and articulation with

Semiquavers (a)



tu' tu ru' tu ru' tu

Semiquavers (b)



tu' ru tu' ru tu' ru

Musical examples:

Isis, Air de forgerons


Vif



Isis, Canaries



Temple de la Paix, Passepied



Corelli, Op. V, Vivace



Corelli, Op. III, Adagio



Time signature: $\frac{9}{8}$

Notation	Performance	Articulation
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

Illustrations of inequality and articulation as for $\frac{3}{8}$ time above.

Musical examples:

Bernier, Cantata I



Res - pect-ons l'Am - our

Masciti, Gigue



Alternative notation for $\frac{9}{8}$ time includes triplets in 3 time, e.g.

Clerambault, Cantata III



Time signature: $\frac{6}{4}$

Notation	Performance	Articulation
Semibreves	Equal	tu
Minims	Equal	tu
Crotchets	Equal	tu
Quavers (a)	Unequal	tu ru'
Quavers (b)	Equal	tu

Illustrations of inequality and articulation with

Quavers (a) 
tu' tu ru' tu ru' tu

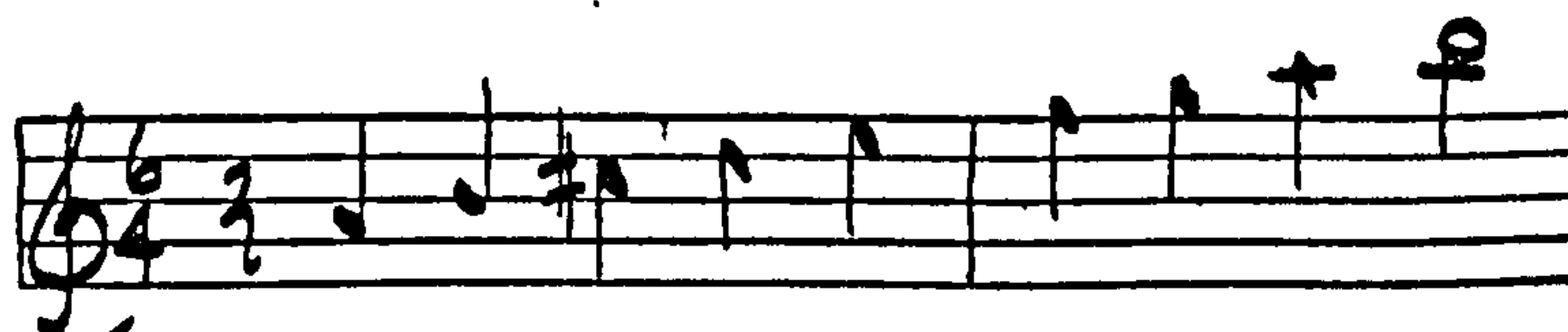
Quavers (b) 
tu tu tu tu tu tu

Musical examples:

Armide Reprise of the Overture



Prosperine



Thétis Loure
[Grave]



Roland GigueL'Europe Galante ForlaneTriomphe de l'Amour Air des vents

Time signature: $\frac{6}{8}$

Notation	Performance	Articulation
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

Illustrations of inequality and articulation with

Semiquavers (a)



tu tu ru' tu ru' tu

Semiquavers (b)



tu' ru tu' ru tu' ru

Musical examples:

Clerambault, Air from Cantata I

Gracieusement



Sous les lois de la jeu-ne Flo-re

Corelli, Op. V Gigue

Allegro



Persee Gigue




Time signature: $\frac{12}{8}$

Notation	Performance	Articulation
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru


Illustrations of inequality and articulation with

Semiquavers (a)



tu' tu ru' tu ru' tu

Semiquavers (b)



tu' ru tu' ru tu' ru

Musical examples:

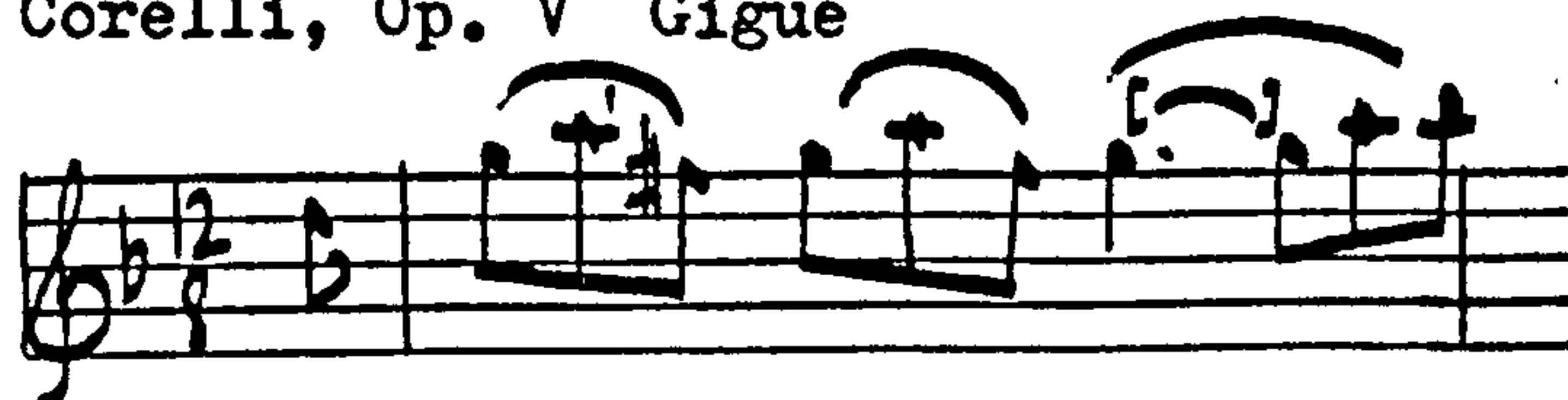
Bernier, Cantata 6

Gracieusement



Fiers vain-queu-rs de la ter-re

Corelli, Op. V Gigue



Alternative notation: triplets in C or ϕ

Corelli, Op. V Gigue (alternative notation)



Time signature: $\frac{2}{4}$ or $\frac{4}{8}$

Notation	Performance	Articulation
Crotchets	Equal	tu
Quavers	Equal	tu
Semiquavers (a)	Slightly unequal	tu ru'
Semiquavers (b)	Equal	tu' ru

Illustrations of inequality and articulation with

Semiquavers (a)



Semiquavers (b)

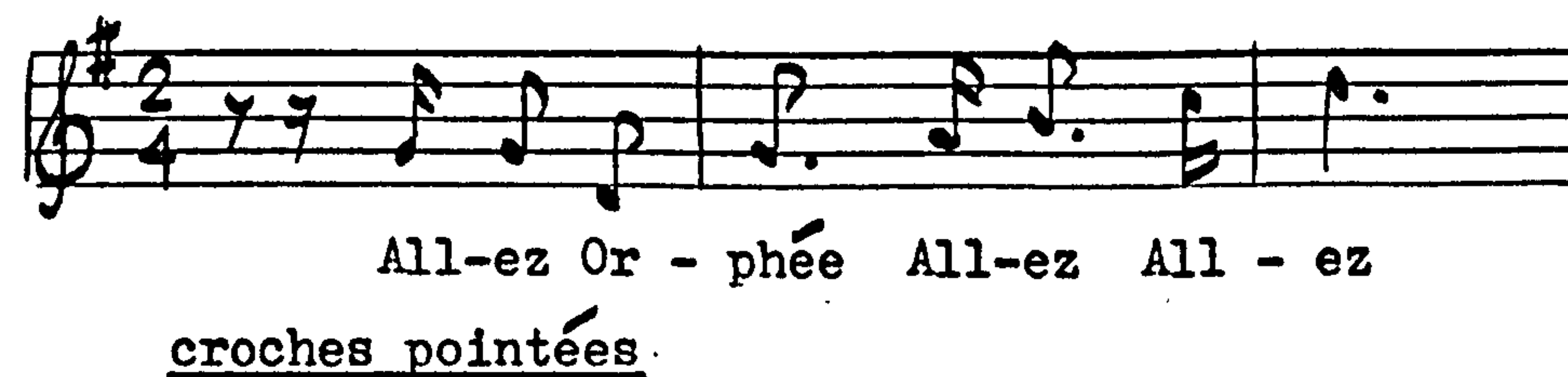


Musical examples:

Clerambault, Cantata 1



Clerambault, Cantata 3



Masciti, Sonata



Lulli Roland Air de Pâtres



Marais Alcienne 3e Air de Matelots



Ornamentation

Some questions arise from the information on ornamentation which French woodwind tutors offered.

- (i) Was the ornament diatonic or chromatic?
- (ii) Did it fall on the beat (as was usual) or was it meant to precede the main note?
- (iii) Was it performed quickly or slowly? If slowly, then in what relation did it stand to the main note?
- (iv) Which received stress in performance, the ornament or the main note? If the ornament, then which part of the ornament?

C. 1700 improvised ornamentation was a normal part of performance although there was always some argument about the degree to which ornamentation should be carried out; appropriate embellishment was subject to the dictates of a mystical 'good taste'.

Mersenne's Harmonie universelle (Paris, 1636) was the first book to survey ornamentation systematically. Performance directions in this work were much freer than those in the Preface to Jacques Champion de Chambonnières' Pièces de Clavecin (Paris, 1670). Instructions in J. H. d'Anglebert's Pièces de Clavecin (Paris, 1689) indicated that suspensions and trills normally began on the beat, in contrast to Spanish and Italian practices. On the other hand Etienne Loulié in his Elements ou Principes de la Musique (Paris, 1698) and Jean Jacques Rousseau in his Traité de la Viole (Paris, 1687) advocated that suspensions should sometimes be taken from the value of the preceding note and sometimes from the following. Even the tremblement appuyée could be anticipated (they claimed), but the unprepared trill from above must be performed on the beat to form a dissonance with the bass.

Keyboard players in the 18th century developed varying signs for specific ornaments, while string and wind players, with some exceptions (Hotteterre, for example, in his Premier Livre (Paris, 1708) provided signs for various types of graces and used them much in the same way as did Couperin in his keyboard works. Usually a small cross (+) was used to indicate any or all types of embellishment.) were often content to indicate at most the place of incidence.

French influence in Germany grew stronger towards the end of the 17th century, and Georg Muffat (for many years a pupil of Lully) gave the ornaments in the French style in his Florilegium Secundum (Passau, 1698), as did J. K. F. Fischer in his Musikalisches Blumen-Büchlein (Augsburg, 1698/9). In the second movement of Telemann's Recorder Sonata in F the composer indicated some specific ornaments in the French style; he also favoured rich ornamentation in the Italian style, and his work represents a compromise between French and Italian ornamentation styles, a border-line which was not always clearly defined. Another amalgamation of French and Italian ornamentation took place in J. S. Bach's Clavier-Büchlein vor Friedmann Bach (1720). Despite the fact that Bach applied terms to the different ornaments other than the customary ones and wrote out sustained appoggiatures before trills, he relied on previous (generally printed) tables.

In the 17th century French influence in ornament performance was also evident in England, although terminology and symbols differed. Instructions in the English tutors, e.g. Christopher Simpson's The Division Violist (London, 1659), Matthew Locke's Melothesia (London, 1673), and Purcell's A Choice Collection of Lessons (London, 1696), were similar to those in French tutors, but writers after Simpson assumed that players would know how to execute ornaments,

and therefore confined themselves to describing in detail and labeling the ornaments actually demonstrated by Simpson.

French composers furnished their works with ornamentation signs to such an extent that performers had merely to play what was prescribed by the composer. The pieces in the supplement to Hotteterre's Méthode pour la Musette (Paris, 1737) are good examples of this type of fully-ornamented music; they are transcribed from the original *printed edition* ~~the~~ in Volume II.

Specific ornaments and information about them from the French wood-wind tutors 1690-1750

The trill

Hotteterre in the Preface to his Livre Premier^(p.2) stated that

a tremblement ... may be defined as an agitation of two notes a tone or a semitone apart, and beaten several times in succession. It begins on the higher note and is finished on the lower, articulation only being given to the first, for the finger continues it.

Trills were essentially appoggiaturas from above which had ornamental resolutions to their main note. Similar to the long appoggiatura their purpose was to replace a consonant note with a dissonance which was to be stressed and sustained so as to create an actual change in the written harmony. Re the preparation of a trill

Hotteterre in his Méthode pour la Musette^(p.37) stated that

the first note of the trill should be held about half the value of the ornamented note.

On performing a trill Hotteterre in the Preface to his Premier Livre stated that

the number of finger blows which you must give it is regulated only by the value of the note. Above all, it is necessary to observe not ~~only~~ to hurry in beating the tremblement, but, on the contrary, to suspend it about half the value of the note, principally in slow movements.

Freillon-Poncein referred to trill acceleration as current practice in his Véritable Manière (Paris, 1700). Mahaut pin-pointed the difference between French and Italian trill performance in his Nouvelle Méthode pour la Flûte (Amsterdam, c. 1759) when he stated that

the difference between the French and Italian trill was that the French dwelt on the preparation, while the Italians plunged straight in.¹

¹ Quoted in Marvin, R. 'Playing French Late Baroque Music on the Recorder' American Recorder, Vol. IX No. 2 (New York, 1968) p. 40

His musical example was drawn, however, from an earlier source, viz. Corrette's flute tutor of c. 1735! In general, the duration of the appoggiatura preparation depended on which Affect was wanted.

Hotteterre in the Preface to his Premier Livre^(p.2) had this to say about the position/occurrence of a trill:

You should make a tremblement on all accidental sharps, except where they occur on very short notes such as some quavers and semiquavers.

The performance of cadential trills was obligatory in French woodwind music 1690-1750, even though, as frequently happened, no signs were present. Couperin confirmed Mahaut's views on French trill performance quoted above when in L'Art de Toucher le Clavecin^(p.23) he says that

trills must begin more slowly than they end; but this graduation must be imperceptible.

But Hotteterre qualifies this practice slightly when in the Preface to his Livre Premier^(p.2) he affirms that

flattements, tremblements, and battements should all be played more slowly or quickly according to the tempo and character of the piece.

This instruction was in direct contrast to what he said in his Principes de la Flûte, but, since the Livre Premier was published in the year after the publication of the Principes, perhaps Hotteterre had had some second thoughts. The termination of a trill took the form of a turn (see p.119) or an anticipation:



In Hotteterre's writings the tremblement was described as having no

1 No current English word conveys completely the concept of the German Affect; Affect is chosen in preference to Passion, the other possibility.

termination and the turned trill was dealt with as a separate ornament, viz. the double cadence (see p.120). Trills normally occurred without terminations in the following contexts:

- (i) On short notes within a fast movement.
- (ii) On the second of two repeated notes, especially if the second note was on a strong beat.
- (iii) On trills replacing the single appoggiatura from above.
- (iv) On the 3rd, 5th, 7th notes etc. of a descending scale passage. The aural effect was almost one of inverted mordents, but inverted mordents, as such, were not used in French woodwind music of our period.



Such trills were used to increase brilliance, ~~and drama~~. A trill was played rhythmically and tongued in the following contexts:

- (i) If in a slow movement a quick trill would destroy the Affect.
- (ii) If in a fast movement the trill stood between quick notes.
- (iii) If the technique of the instrument did not permit a fast shake between certain notes because of fingering difficulties.

The long appoggiatura

The function of the appoggiatura was to alter the written harmony by replacing a consonant note momentarily with a dissonant one, one step above (or below) the written note. By this means expressive dissonances were introduced into French music of the period 1690-1750 which would not otherwise have been allowed.



The longer the dissonance was sustained, the greater was the expressive quality of the ornament. In terms of Affect, long appoggiaturas expressed 'grief' whereas short ones portrayed 'indignation' or 'wrath'. Quantz's discussion of the essential graces in his Versuch was one of the first attempts to establish general rules of duration of appoggiaturas. Even the relatively late flute tutors of Hotteterre and Corrette failed to indicate the exact duration of most ornaments. Ambiguity suggests that performers had greater latitude in making their own decisions re duration than was in fact the case. In normal performance practice of 1690-1750 the average long appoggiatura took

- (i) half of a note subdivided into two parts,
- (ii) two-thirds of a dotted note,
- (iii) all of a note before a rest,
- (iv) all of a note which is tied to another note of the same pitch.

If there was no sign indicating whether the main note was to receive an appoggiatura from above or below, the following rules were applied:

- (1) an appoggiatura from above was used if the preceding note was

higher than the main note,

(ii) an appoggiatura from below was used only if the main note was preceded by a note one semitone below. Dissonances resolving upwards were only permitted if they were prepared.

The appoggiatura was not invariably one step away from its main note. In fact appoggiaturas approaching the main note by leap were not uncommon, but they were almost always prepared. They occurred in the following contexts:

(i) If the musical line proceeded entirely in consonant notes, appoggiaturas could be played on the longer notes to enliven the harmonic interest.

(ii) A long consonant note could be made more interesting and expressive if it began with an appoggiatura; this never applied to long notes at the beginning of a piece or a section of new thematic material.

(iii) An appoggiatura could always take the place of a trill, except at cadences. Such substitutions avoided some vexing and otherwise insoluble problems of technique, and the substitution of appoggiatura for a trill was a reciprocal arrangement.

The short appoggiatura

Appoggiaturas taking less than half of the main note were standard during the early and middle part of the period 1690-1750 while the long appoggiatura only became standard during the later part of the period. Short appoggiaturas varied in length from one quarter to one third of the value of the main note at a maximum to the shortest possible length at a minimum. They were true appoggiaturas in the sense that they did not begin before the main note but at its beginning. Their purpose, however, was less harmonic than rhythmic, and they gave a snapping rhythmic accent to the main note. Appoggiaturas were played short in the following circumstances:

- (i) between two notes of the same pitch,
- (ii) on notes of the shortest value within a given passage,
- (iii) on a note which was discordant with the prevailing harmony,
- (iv) on a triplet where a long appoggiatura would confuse the rhythm.

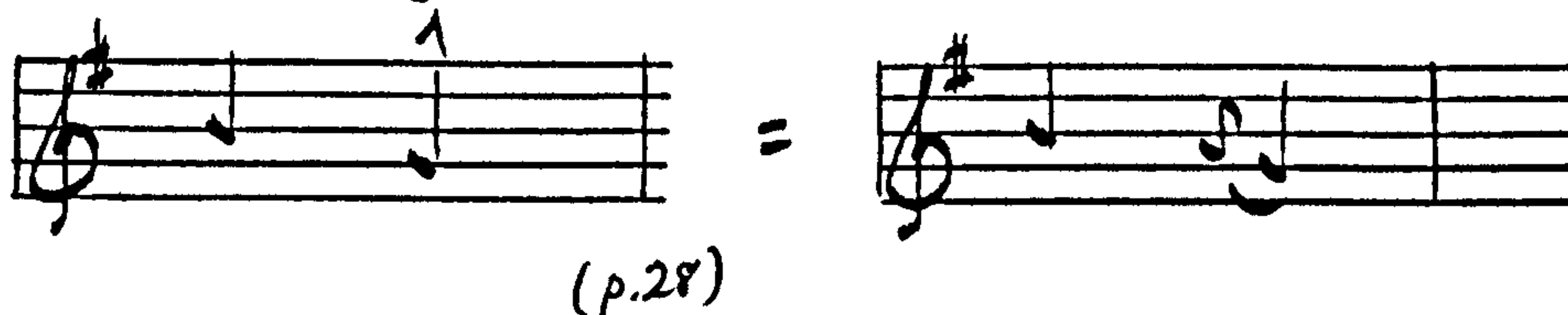
The so-called passing appoggiatura¹

In passages of descending thirds it became customary to fill in the thirds (couler les tierces) with lightly played, relatively short notes which took time from the preceding note and were slurred to the following note. The written notes received the stress. The 'passing appoggiatura' was seldom notated by the French although they always introduced it in such passages. When written, it was often notated by small notes to the left of the main notes and was slurred to them. This form of notation was unfortunate since it tended to suggest that the ornamental notes which filled in the intervals were played on the beat like true appoggiaturas quite contrary to the smooth, gentle effect intended.



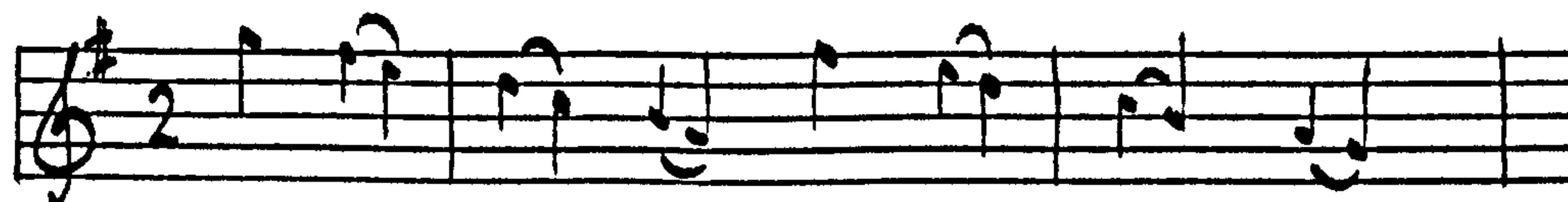
Hotteterre in the Preface to his Livre Premier^(p.2) stated that

you should make a coulement [passing appoggiatura] on almost all descending intervals of a third.



Hotteterre in the Principes^(p.28) stated that

the coulement is taken a step above and is rarely made except in descending intervals of thirds; these little notes which make the coulements are counted for nothing in the bar.



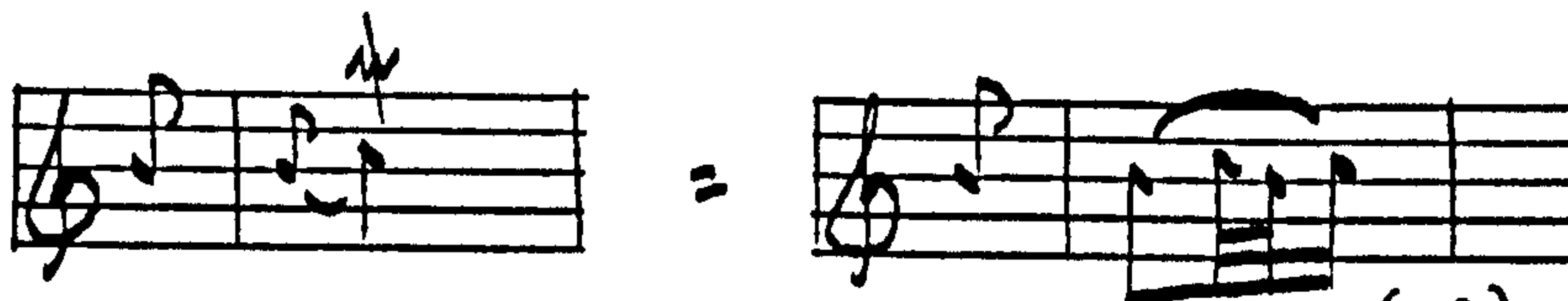
Hotteterre's statement however did not make it clear whether coulements were played on or off the beat. Quantz in his Versuch

¹ Kenneth Gilbert in his recent edition of F. Couperin's Pièces de Clavecin (Paris, 1972) calls this ornament coulé de tierce mélodique.

advocated before-the-beat performance as being characteristically French. Nearly all French sources on keyboard ornamentation agree that appoggiaturas between descending thirds fall on the beat of the following note rather than just before it. Sources for non-keyboard instruments including the writings of Jean Rousseau (1683), Loulié (1696), and Jean Jacques Rousseau (1767) were more equivocal about duration and state that appoggiaturas of the coulée type fall in the time of the previous note. Since Quantz twice emphasised the French origin of this ornament, it seems certain that his description represents the manner in which it was performed in Paris, at least by flute-players, during his visit there in the 1720's.

The port de voix

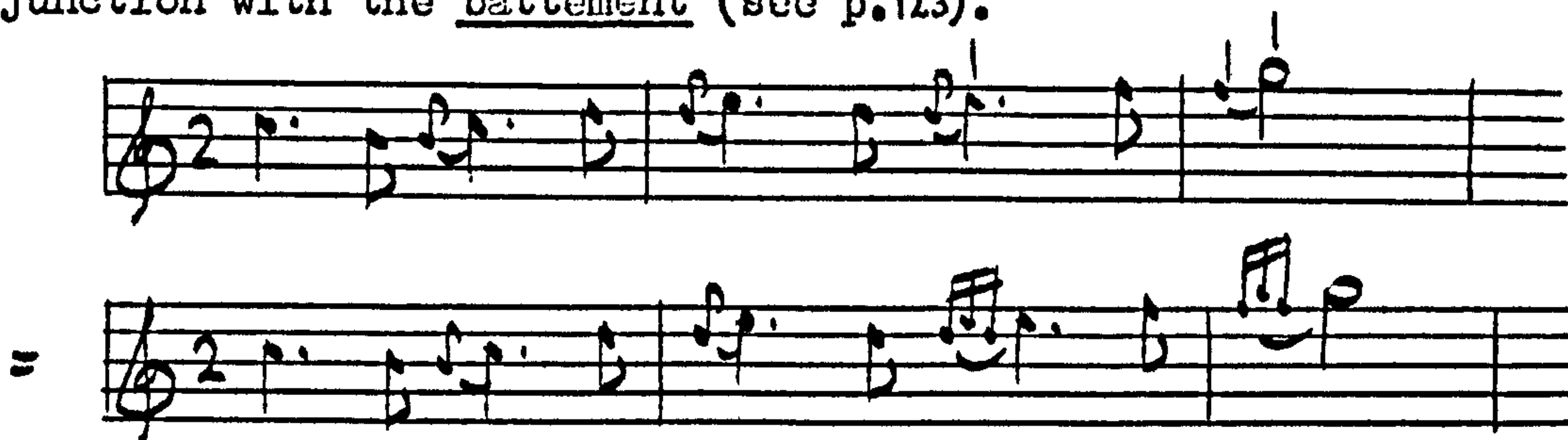
The port de voix was a compound ornament combining the appoggiatura from below with a mordent.



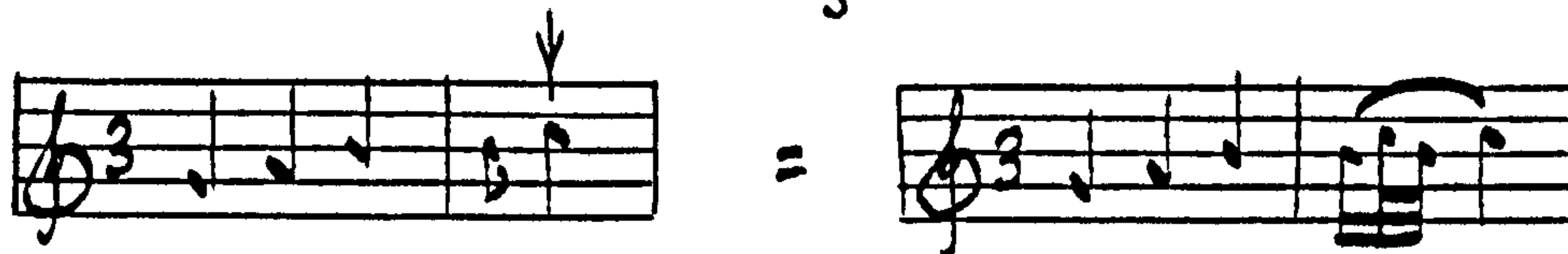
Hotteterre in the Preface to his Livre Premier^(p.2) stated that

the port de voix is played off the beat, and taken from below the note on which it is intended to be made.

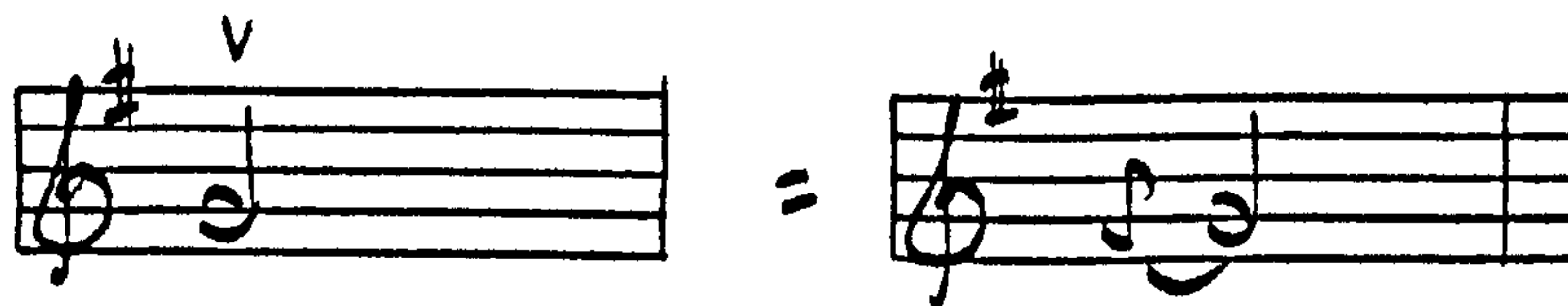
Hotteterre gave an example of the ornament itself and also in conjunction with the battement (see p.123).



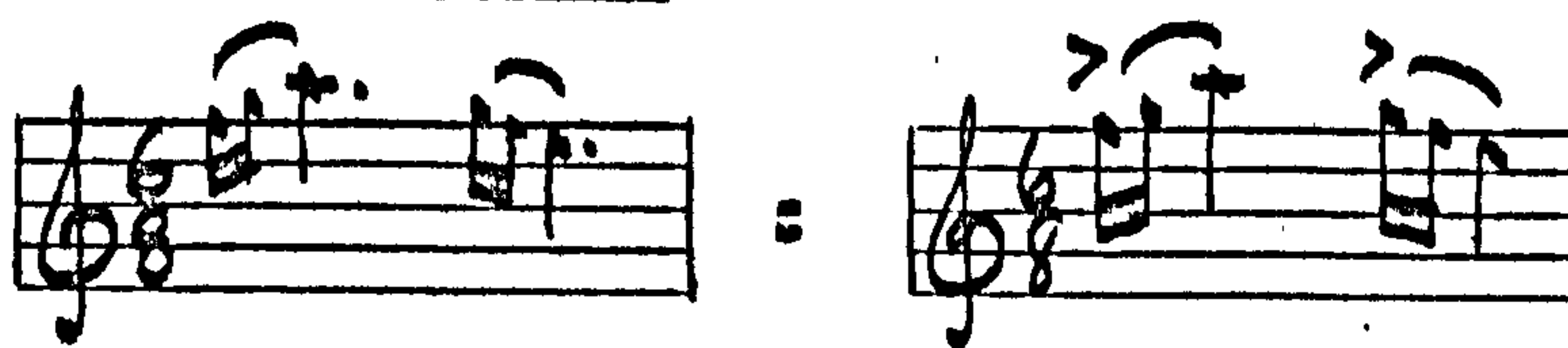
This ornament, the most characteristic of French music of the period 1690-1750, was inaccurately described by Couperin in the table of ornaments in his Pièces de Clavecin as the port de voix simple.



The sign for the port de voix was an inversion of that used for the coulement, and the ornament was in fact the equivalent of an inverted coulement.



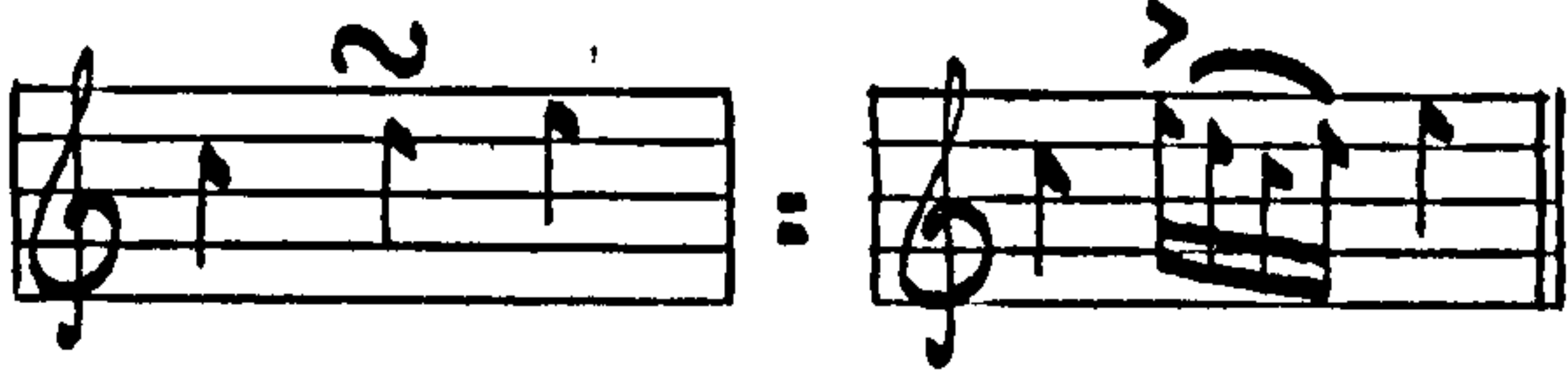
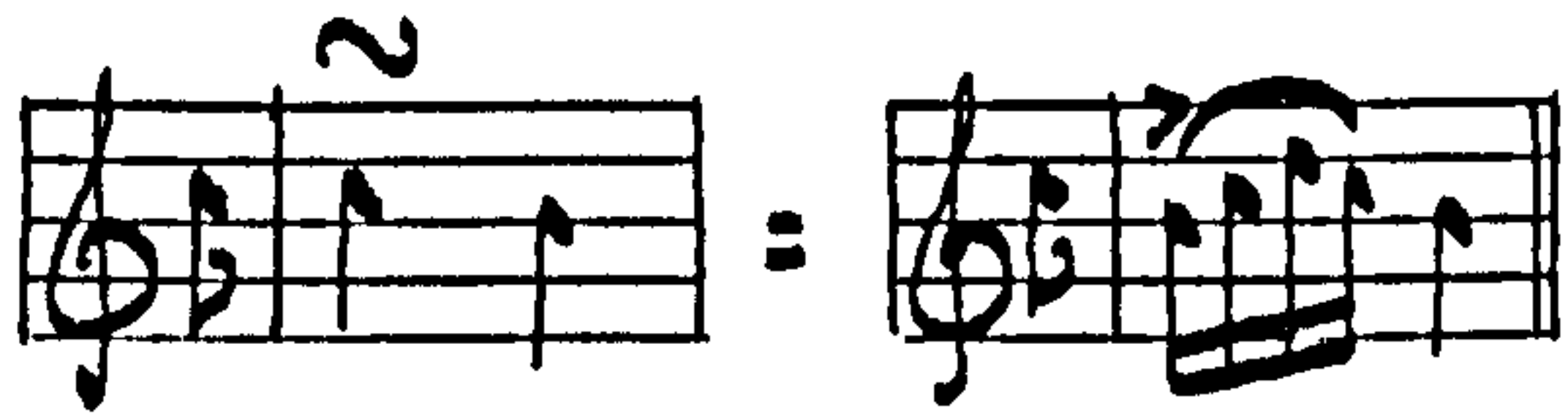
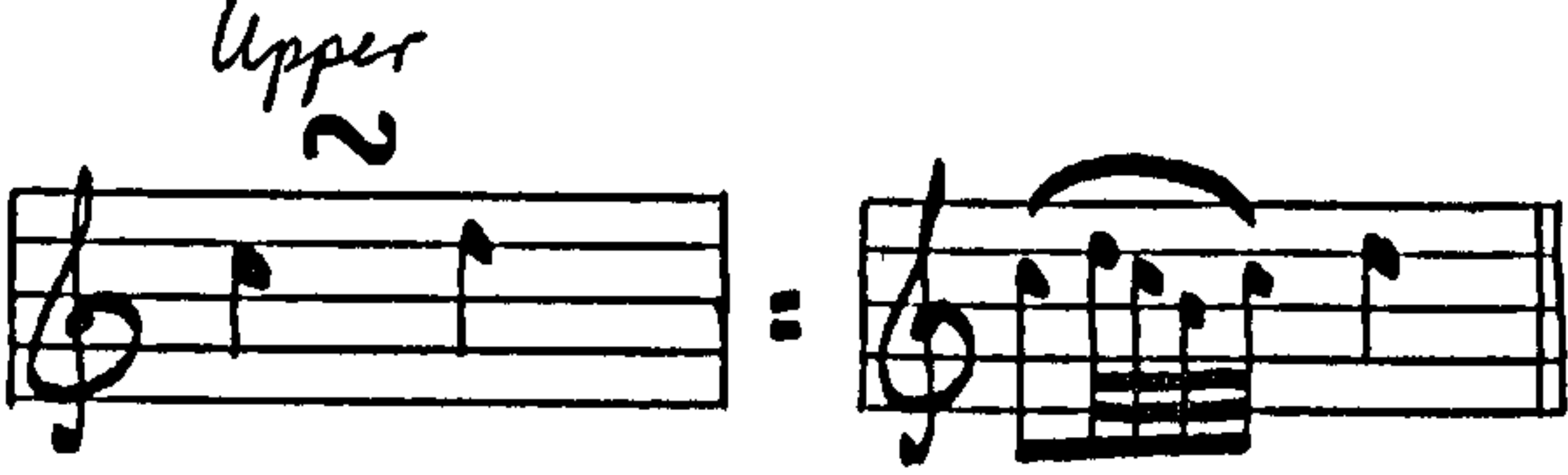

The port de voix double



There was considerable disagreement amongst contemporary authorities as to whether the port de voix simple (or slide) should be played on or before the beat; Hotteterre did not clarify the issue. The number of notes in the slide depended on the time available for the ornament and/or the intensity of the Affect desired.

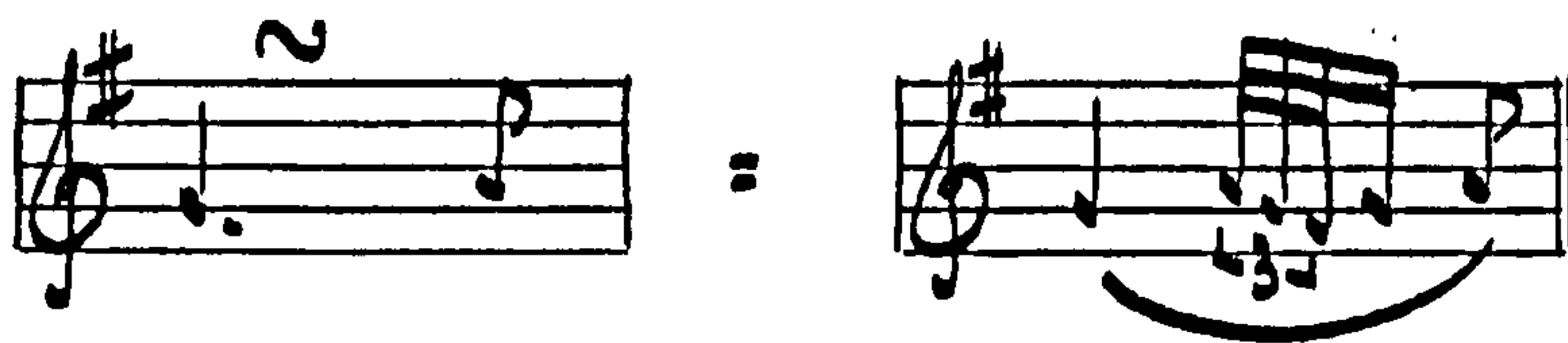
The turn

The turn took two forms of which the lower turn was much less frequently used than the upper, the musical context governing the choice of the appropriate form of the ornament. The upper turn was freely used in place of a trill on notes which were too short to allow the more elaborate trill.

<p>Upper</p> 	<p>Lower</p> 
<p><i>Upper</i></p> 	<p><i>Upper</i></p> 

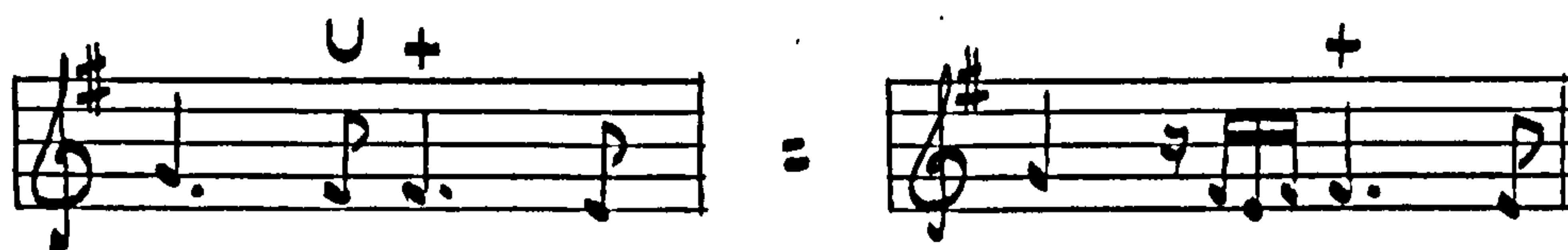
The tour de gosier

In the Preface to Hotteterre's Premier Livre the author gave an example of this ornament.



The tour de chant

The tour de chant also only appeared in the table of ornaments in Hotteterre's Livre Premier.



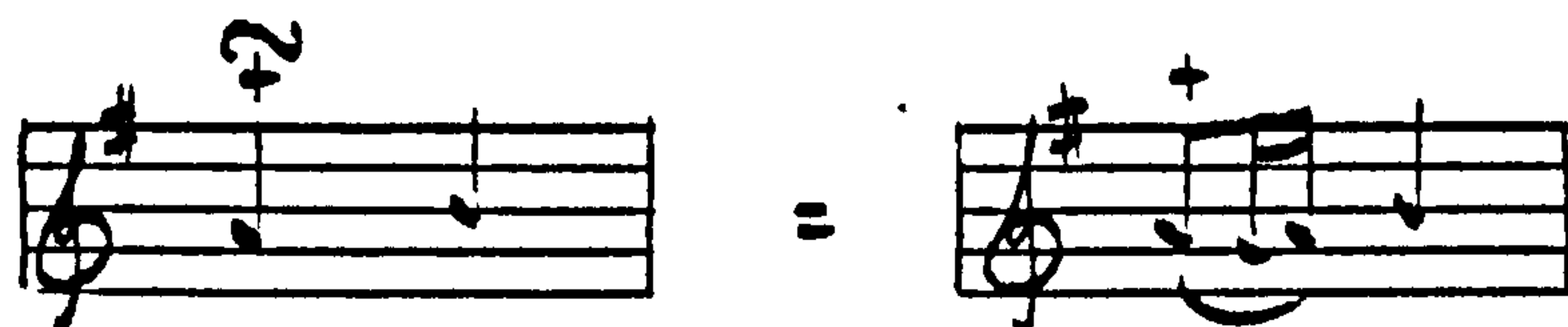
The double cadence

The double cadence was a standard ornament formula at cadences which had a pair of dotted notes.



Hotteterre gave the ornament in two versions, (i) slurred, and (ii) in conjunction with a termination articulated with the syllables tu ru. This softly tongued termination was presumably a relic of a former custom, and indeed Ganassi in his Regula Rubertina (1542) stated that the notes of a shake should be bowed backwards and forwards on a stringed instrument. This implied that he intended the shake to be articulated with a precise rhythm. Hotteterre in the Preface to his Livre Premier^(p.2) stated that

... you should make a double cadence when ascending one note higher after a trill.

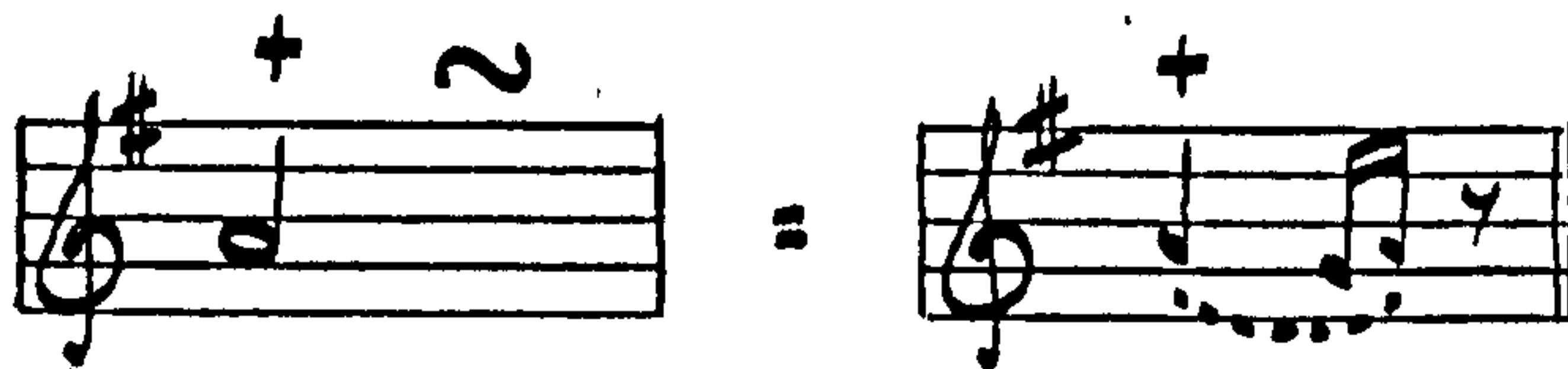


A slight variation was described in Hotteterre's Principes de la Flûte^(p.29) where the double cadence was described as an ordinary tremblement followed by two semiquavers, slurred or articulated.



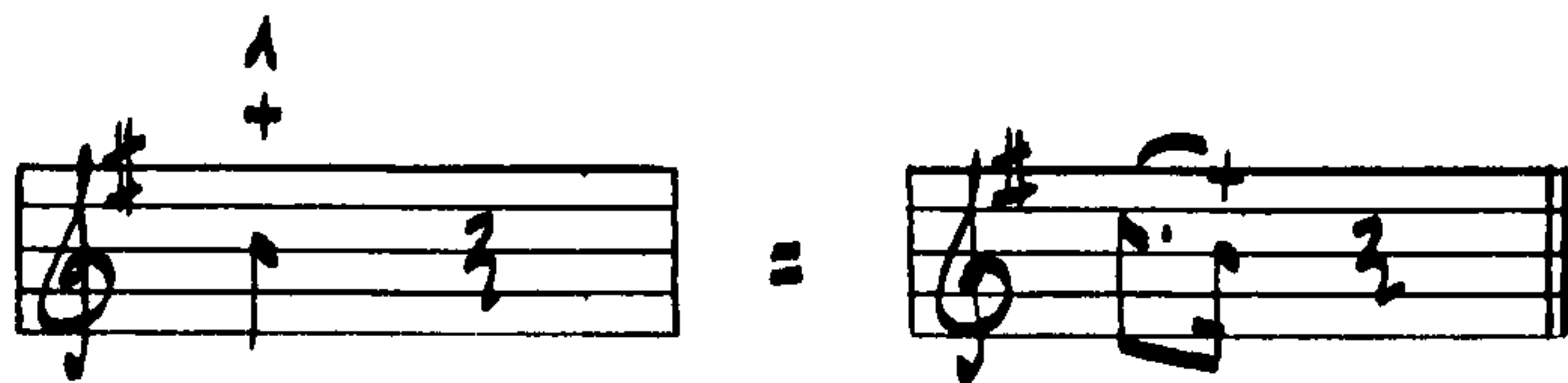
The double cadence coupée

This ornament was not mentioned in the Preface to Hotteterre's Livre Premier, but was present in the appended table of ornaments and music. It was a refinement of the double cadence in which the termination was played early and was followed by a rest.



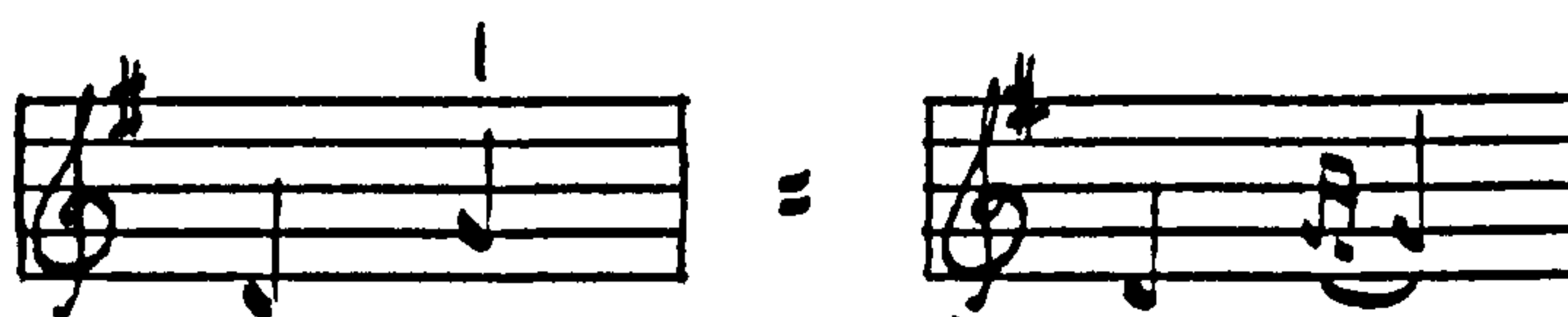
The demie cadence appuyée

This ornament was also present in the table and in the music of Hotteterre's Livre Premier; it was a tremblement in which the appoggiatura was lengthened to three-quarters of the main note.



The battement

The battement was a straight-forward mordent.



Hotteterre in his Principes^(p.30) stated that

the battement is produced by beating once or twice in succession and as quickly as you can on the hole next to the one of the note you want to do it on.

In contrast Freillon-Poncein stated in his Véritable Manière^(p.20) that

... battements are a kind of port de voix, but performed abruptly, beating the finger on the hole with speed.

A battement may have had more than one alternation, but increasing the number of beats reduced the ornament's sharpness and bite.

Mordents were effective on notes approached by leap from below, but were less so when approached by leap from above; they were never played on notes approached by step from above.

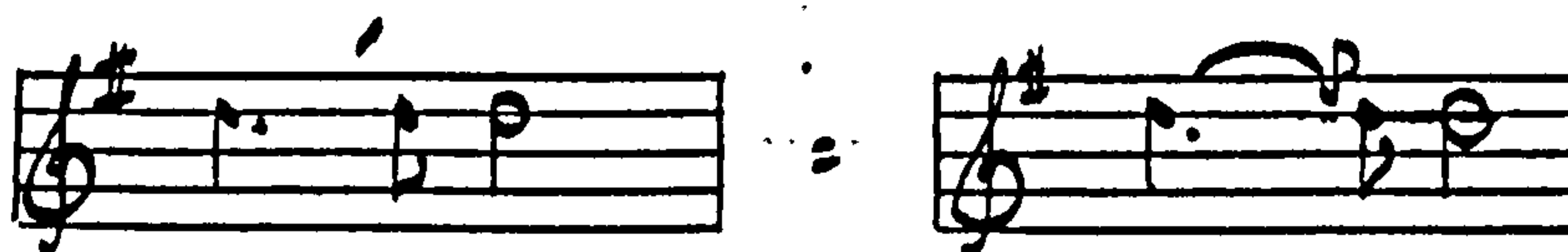
The accent

Hotteterre described the accent in his Principes^(p.29) as

... a sound which you 'borrow' from the end of some notes in order to give them more expression. The accent is played in the time of the preceding note.

Hotteterre frequently wrote out small notes for the interpretation of the accent, probably because its sign so closely resembled that of the battement. Re the frequency of use of the accent Hotteterre in the Preface to his Livre Premier stated that

you can scarcely determine all the places where the accent should be placed. You usually have one at the end of a dotted crotchet when it is followed by a quaver at the same pitch in those time signatures where the quavers are equal. In other time signatures you should proceed as you think appropriate. You may also have them on certain long notes, but you must use them sparingly.



Freillon-Poncein in his oboe tutor mentioned that the accent should be played very quickly between notes of the same chord.

The flattement

~ was the sign used by Hotteterre for the flattement or finger vibrato (as opposed to breath vibrato) even on the lowest note on the transverse flute. Hotteterre's fingerings most often used lower fingers covering their holes completely, but these fingerings produce uneven results on modern instruments. Hotteterre said that the ornament should be used on long notes only, but in the music examples which he appended to the Méthode pour la Musette (Paris, 1737) flattements appeared on many short notes. In respect of intensity, range of control and ornamental quality the flattement was superior to breath vibrato, being instantly changeable from a barely perceptible murmur to almost a mordent. To decide whether + = a trill or a flattement check:

- (i) whether a cross (+) was already present within the movement indicating a trill,
- (ii) context, and rely on one's familiarity with the uses of each ornament, and
- (iii) the authenticity of the edition.

In Rules for Playing in True Taste on the Violin (London, 1747)

Geminiani distinguished between the incipient continuous vibrato recommended for the violin and vibrato as a specific ornament (the flattement) which he found more appropriate to the transverse flute.

'The vibrato of the latter,' Geminiani commented, 'must be made only on long notes'. Quantz's statement that

you can also considerably improve the tone quality of the flute through the action of your chest. You must not use a violent, that is, a trembling action, however, but a calm one,

was an important reference to the use of breath vibrato. In 1759

1 Quantz, J. Versuch (Berlin, 1752) Chapter 4, Paragraph 25.
English translation by E. Reilly, p. 59.

Mahaut mentioned the flattement in his flute tutor, and two year later Delusse mentioned in addition to the flattement a vibrato produced by shaking the instrument and also breath vibrato. Shaking the instrument was also mentioned by Hotteterre in his Principes de la Flûte; in the section on the recorder, shaking the instrument was suggested as a substitute for a flattement on the lowest note. Delusse's material on ornaments was mostly borrowed from Geminiani, and he also borrowed Geminiani's rule for the violin that vibrato should be used as often as possible. As late as 1791, on the other hand, J. G. Tromlitz (a consolidator of the Quantz school) advocated the use of the flattement for held notes, and considered breath vibrato to be harmful to playing and chest alike!

Ornament substitution

It was possible to substitute one ornament for another, provided they both belonged to the same family of ornaments. There were three main reasons for ornament substitution in woodwind performance:

(i) According to Quantz the size and resonance of a room ought to affect the speed of a trill. In a highly resonant room there may be time for only a turn to be clearly enunciated, whereas in other less resonant conditions a trill with a termination could be substituted and still be clearly heard.

(ii) Higher, clearer-speaking notes could take faster and more brilliantly played ornaments than lower notes.

(iii) Ornament substitution solved otherwise insoluble problems of technique. For example, a trill between a low A_4 and B_4 flat on the alto recorder was almost impossible, but a possible solution entailed extending the preparation and curtailing the beats in the trill to the minimum of two, viz.,



SignsA summary of their interpretation.

+ t tr w w	=	Trill
~	=	Turn
S ₊	=	Trill + 2-note termination.
^ ₊	=	Trill + an appoggiatura worth $\frac{3}{4}$ of the value of the trill.
V	=	<u>Port de voix</u> (ascending appoggiatura) played short and on the beat.
^	=	<u>Coulement</u> (passing appoggiatura) played short and before/on the beat in descending thirds.
	=	<u>Battement</u>
/	=	<u>Accent</u>
w	=	<u>Flattement</u> (according to context)
U	=	<u>Tour de chant</u>

The Affects

There were in Baroque woodwind music expressive values not represented by written symbols. The main concern in performance was the shaping of the Affects, and it was from this point of view that ornamentation, articulation, rhythmic alteration, fingering, dynamics and vibrato were approached. C. P. E. Bach said:

It seems to me that music must above all move the heart. Since a musician cannot move others unless he himself be moved, he must need be able to enter himself into all the Affects which he wants to arouse in his listeners.

Regarding the term 'motion' Jean Rousseau in his Traité de la Viole (Paris, 1687) remarked that

some people imagine that 'to give a piece the right motion' is equivalent to keeping in line with the beat. There is, however, a great difference between the one and the other, because one can maintain the beat for a long time without ever getting into the right motion, since the beat only follows from the music, but the right motion from one's genius and good taste.²

Mattheson continued in the same way:

Here everyone must delve into his own soul and find how his heart moves him; according to its state, our conception, singing and playing will at certain degrees of an unusual or extraordinary movement which we cannot derive merely from the beat ...

nor from its notable retardation or acceleration, nor from the value of the notes, but only from a secret impulse. One notes its effect, but one knows not how it occurs ...

Whoever listens to a piece that is performed by various persons today here, tomorrow there, of whom some hit the right movement and others miss it, can easily tell which of the two be the right one.³

- Part I, Chap iii, para 13*
- 1 Bach, C. P. E. Versuch (Berlin, 1753) *Part III, Para 13* .
 - 2 Rousseau, Jean. Traité de la Viole (Paris, 1687) p. 66
 - 3 Mattheson, Johann. Der Vollkommene Capellmeister (Hamburg, 1739) p. 173

Hence Leopold Mozart in 1756 gave this advice to his readers:

The good performance of a composition according to today's taste is not as easy as some people imagine who think they have done everything if they ornament and dress up a piece ~~according to their intellect~~ ^{after their own fashion} and who have no idea of the Affect that is supposed to be communicated by the piece ...

It is not enough to observe exactly whatever has been noted and prescribed by the composer and to play it exactly as written, but one must also play with a certain sensitiveness, identifying oneself with the Affect that the composer wants to express ...

Before one begins to play, one must look at the piece attentively. One must try to identify the character, the tempo, and the kind of motion which the piece requires ...

During the performance one must above all endeavour to hit the Affect and to produce it rightly as the composer wanted to create it ...

in a word: one must play everything so that one is oneself moved by it ...

From this follows, that one must observe most precisely the prescribed fortes and pianos. Even without express prescription one must alternate the strong and the weak and put each one in its proper place.¹

Parallels in the functioning of the arts of rhetoric and music were noted. Rhetoric consisted of five working processes in the composition of a speech, all of which were equally applicable to the composition of music: Inventio (invention), Dispositio (disposition), Elaboratio (elaboration), Decoratio (embellishment), and Executio (performance). The description of the content was, according to Mattheson,

the richest source, the surest and most substantial guide to invention ... since it comprises the inexhaustible ocean of human Affects which are to be described and depicted in notes.²

The melody was constructed in analogy to the rules of a sentence,

¹ Mozart, Leopold. Versuch ... (Augsburg, 1756) p. 252

² Mattheson, J. Loc. cit., p. 127.

as Mattheson demonstrated by the example of a Menuetto,¹ and similar principles of melodic construction were adopted by Hotteterre in writing the Preludes for solo woodwinds in L'Art de Préluder (Paris, 1737).

The rich range of Affects (Heinichen gave examples of raging, quarreling, splendid, fearful, playful, combative, united, happy, frivolous, and wholly somber Affects²) was divided into two main groups: the vehement and joyous Affects on the one hand and the soft and sad ones on the other. All expressiveness and shaping of the music was orientated towards these two opposites. Intervals were characterised according to their Affective quality. All musical means (harmony, rhythm, articulation, ornamentation, tempo, and dynamics) were placed at the service of the Affects. The Affective content was recognisable by the notes themselves, and Mattheson demonstrated this with the following example of a courante.³

Courante: Die Hoffnung



strong, confident

longing desire



longing desire, through cadence falling to the fifth

some hope
little joy



1 Ibid., p. 224.

2 Quoted in Mattheson, Op. cit., p. 16

3 Ibid., p. 231.

Dotted notes and the Affects

After examining all the evidence, one comes to the conclusion that the theory of the 'French style' of obligatory over-dotting is, to a large extent, more legend than historical fact.¹

The so-called 'French style' consists of two elements, viz. over-dotting and appropriate synchronisation. As much evidence² suggests, over-dotting was applied where a dotted rhythm was characteristic of a piece, and was consequently used in such movements as Entrées, Sarabandes, Courantes, Chaconnes, and Passacailles, but it was above all supposed to find a place in the Overtures of the French school. In passages in which the first note of a pair had a dot, the first note was played very much elongated. This style of performance was called pointer or piquer according to Hotteterre, but the terms pointer, piquer, lourer etc. came to indicate any sort of inequality (see the extract from Hotteterre's Principes quoted on p. 80).

Overtures must be played 'jerkily' with all the notes after the dots synchronised and reduced to the denominator of the shortest note values.³ Quantz's instructions were as follows:

The notes following dotted quavers or semiquavers must be played as quickly as possible because of the vivacity of their expression ... whether in slow or quick tempo.⁴

This statement seems to indicate that if the character of the piece (or of the dotted passage) is not relatively vivacious then this

1 Neumann, Frederick. 'La note pointée et la soi-disant Manière Française' Revue de Musicologie (Paris, 1965) p. 66

2 Donnington, Robert. The Interpretation of Early Music (London, 1963) p. 375

3 Dart, Thurston. The Interpretation of Music (London, 1954) p. 81

4 Quantz, J. J. Versuch ... (Berlin, 1752) Chap. V, Para. 21.

principle does not apply. Although the shortening of the small note values may imply synchronisation of notes of different values, Quantz³ but he does have examples of synchronisation in his demonstration of the performance of dotted notes. does not actually mention this possibility.¹ With reference to French dance music, he speaks of over-dotting the crotchets in certain places, but he omits Overtures from his list of such pieces!

The variability of the dot was taken for granted in late renaissance and early baroque notation, and received the attention of the theorists only towards the end of the baroque period when taking such 'liberties' with notation seemed no longer quite so obvious. The following passage is evidence that the dot was regarded in 1565 as a sign for unmeasured prolongation, as well as one for prolongation by one half.

The method to be observed in playing crotchets is to linger on the first, to hurry on the second, to linger again neither more nor less on the third and to hurry on the fourth. This is done as if the first crotchet were dotted, the second crotchet a quaver and likewise as if the third crotchet had a dot and the fourth crotchet were a quaver, and so on. And care must be taken that the hurried crotchet should not be too hurried, but only slightly so ...

Couperin's use of the word 'dotted' in describing inequality is further confirmation of the use of the dot as a sign for variable prolongation:

Slurs, of which the dots indicate that the second note of each beat must be stressed.²

Quantz did not speak of the double dot as being an innovation; the double dot as a notational symbol was used in France by Chambonnières, Louis Couperin, and (especially) André Raison.

1 Tomas de Santa Maria, Fray. Arte de taner fantasia (Valladolid, 1565) 7th Condition

2 Couperin, François. Pièces de clavecin (Paris, 1713) Table of ornaments

3 Quantz, J. J. Versuch (Berlin, 1752) Reilly's trans. p. 67.

Tempo and the Affects

In the 18th century the internal sections of motets, choral compositions, fugues, etc. were ordered and varied by the principle of proportions. The domination of the strict tactus was undermined from two sides, (a) the dance, and (b) the monodic operatic style with its emphasis on affective expression. The French woodwind composers contributed widely to the dance, and in the suites and character pieces of Hotteterre le Romain for example the character of each piece determined the tempo, particularly (as in his Suite in E minor) where there were several samples of each type of movement. There were numerous indications of modifications of tempo within a movement for the sake of expression. Georg Muffat recommended that

for the sake of gracefulness one should somewhat modify and distort the value of certain notes.¹

Tempo rubato was 'the art which teaches how to gain time and lose it again' according to Tosi-Agricola,² and it consisted in the extension of one note at the expense of another, the beat remaining the same. The principle was similarly applied to notes inégales and the Lombardic style of the French woodwind composers.

1 Muffat, Georg. Florilegium musicum (Passau, 1695) Preface, Para. 4

2 Agricola, Johann Friedrich. Anleitung zur Singekunst (Berlin, 1757) p. 225

Dynamics and the Affects

Baroque wind music did not confine itself within terraced dynamics, although French composers were very lax about indicating any dynamic variations. Performance was orientated towards the human voice. Mattheson said:

Whoever cannot sing, does not know how to play: the knowledge of singing is necessary not only to a composer, but to every continuo player, every instrumentalist, and if his throat is not good enough, still his singing thoughts must give their commands to the fingers; otherwise everything is wooden and dry.¹

Hawkins commented in vocal terms on the flute-playing of Hotteterre indicating again that the human voice was the yardstick of expressiveness in instrumental performance:

... the French masters excel those of Italy in their performance on the violin, the hautboy, and the flute; (Here the author celebrates as fine performers on the flute: Philibert, Philidor, Descoteaux, and les Hotteterre) the latter of whom ... have taught the instrument to lament in so affecting a manner in the mournful airs, and to sigh so amorously in those that are tender, that all are moved by them.²

Nothing was more alien to singing than terraced dynamics.

August Wenzinger has recently traced the evolution of dynamic variation in instrumental music.³ Such phrases as:

Inimitable charming sweetness - Majestical and Stately and not much Inferior to the Trumpet ... with a good Reed it goes as easie and soft as the Flute [recorder]

1 Mattheson, J. Grosse Generalbassschule (Hamburg, 1731) p. 329.

2 Hawkins, Sir John History of the Science and Practice of Music (London, 1776) p. 781.

3 Wenzinger, August. 'Expression and its Interpretation in Baroque Music' The American Recorder Vol. XI, No. 1 (New York, 1970) p. 8

from The Sprightly Companion¹ show that infinite dynamic variation was looked upon as a desired attribute of the newly-designed oboe c. 1700. In 1638 Fantini taught swelling tones for the trumpet as 'in modo cantabile'². Hubert Le Blanc said in 1740:

The gracefulness of musical performance depends on having a crescendo followed by a decrescendo in good time, just like a well-built lady's leg, of which the Queen of Nayarra said that it has such great power over the hearts of men.³

Dynamic variations were an adjunct of good woodwind performance before special signs were used as indications, as Quantz pointed out.

One must consider that it is not enough by far to observe the piano and forte only at the places where it is written.⁴

When in an adagio the performer now increases and then diminishes the tone and thus by means of shadow and light plays with Affects, he produces the best results when his accompanist helps him in the same way.⁵

1 Bnister, John. The Sprightly Companion (London, 1695)

2 Fantini, ^{Giovanni} ~~Giovanni~~. Modo per imparare a sonare di tromba (Frankfurt, 1638)

3 Le Blanc, Hubert. Défense de la Basse de Viole (Paris, 1740) p. 51.

4 Quantz, J. Versuch ... (Berlin, 1752) Eng. trans. p. 353

5 Ibid., p. 252

Articulation and the Affects

Articulation was also a most important means of expressing the Affects in woodwind music. Quantz (although in this case he was speaking of stringed instruments) said:

With violins and similar stringed instruments the most important thing in the performance is the stroke of the bow. It produces the instrument's sound either better or worse, it lends life to the notes, it expresses piano and forte, it arouses the Affects, it distinguishes between the sad and the gay, the serious and the light, the sublime and the gentle, the modest and the forward: in one word, it is the means through which - just as with the flute through the chest, tongue, and lips - musical pronunciation is produced, and whereby an idea can be modified in various ways.¹

¹ Ibid., p. 187

Chapter 7

Three new fingering-charts for early woodwinds

(1) Fingering tablature for the musette

The tablature on p. 142 combines information from Borjon's Traité de la Musette (Lyon, 1672) and Hotteterre le Romain's Méthode pour la Musette (Paris, 1737) to form a complete tablature and staff notation chart which, despite their detailed approach to the subject, neither early writer attempted. Borjon gave the following description of how to finger the musette.

In the first place cover the first four holes on the chanter with the left hand, beginning at the top, i.e. the thumb covering the hole at the back indicated '1', the first finger '2', the second finger '3', and the third finger covering '4'. Now with the right hand cover the remaining holes, i.e. with the first finger '5', the second finger '6', the third finger '7', and leave the little finger in the air to place it when necessary on '8'.

All holes must be kept closed with both hands, with the exception of the last hole, i.e. '8', and the fingers should be lifted off one at a time. The example in the tablature begins with a '5', i.e. lift the fifth finger and then replace it; afterwards lift the fourth and replace it also; similarly with the third and second etc. With '1', which applies to the thumb of the left hand, it is not possible to replace it after playing the note since the thumb is required to play the key marked '0'. The same procedure must be adopted with other keys. One must never raise more than one key at a time (the only exception is in trilling) and this is known as 'jouer à couvert'. The effect of this method of playing is to improve articulation. '4' and '5' continue to speak as a drone when one is playing on the small chanter. 'Uncovered play' is characteristic of the shepherds' musette.

Although the lowest note of the large chanter was F_4 , the musette was pitched in C. In writing of keys suitable for the musette Borjon

1 Borjon, C. Traité de la Musette (Lyon, 1672) pp. 21-27

stated that:

4, 6, 7, and 9 [D major-minor, B major-minor, A major/minor and F major/minor] are highly suitable keys, but do not lie so well for the musette as 5 and 8 [C major/minor and G major/minor]. Since the latter are the most popular on the musette, the majority of examples I shall give will be in these keys, without however neglecting to write some in 7 and 9 as curiosities, and so as to make use of the drones which were made expressly for these keys.¹

In the musical examples at the end of his Traité Borjon did not in fact give examples in A major/minor or F major/minor. The only exception to perpetual C major was one piece which he wrote in C minor (see p. 10 in Volume II). The pieces in Part II of Hotteterre le Romain's Méthode pour la Musette on the other hand show a much wider choice of key, but for the most part not going beyond two sharps or flats in their key signatures.

Borjon ascribed the invention of the small chanter to Martin Hotteterre.² With its addition the range of the musette was increased to 19 or 20 semitones. Borjon's verbal explanation of how to produce all the notes on the musette is complicated. Although Hotteterre dealt more specifically than Borjon with the drones³ (Borjon recommended experience as the only true guide for their correct use!) the later author's directions for fingering the chanters were essentially the same as those written by Borjon 65 years earlier. Indeed, Hotteterre made use of Borjon's engravings to illustrate his own book; these are reproduced on pp. 141-42.

1 Borjon, C. Traité de la Musette (Lyon, 1672) p. 21.

2 Borjon, C. Op. cit., p. 25

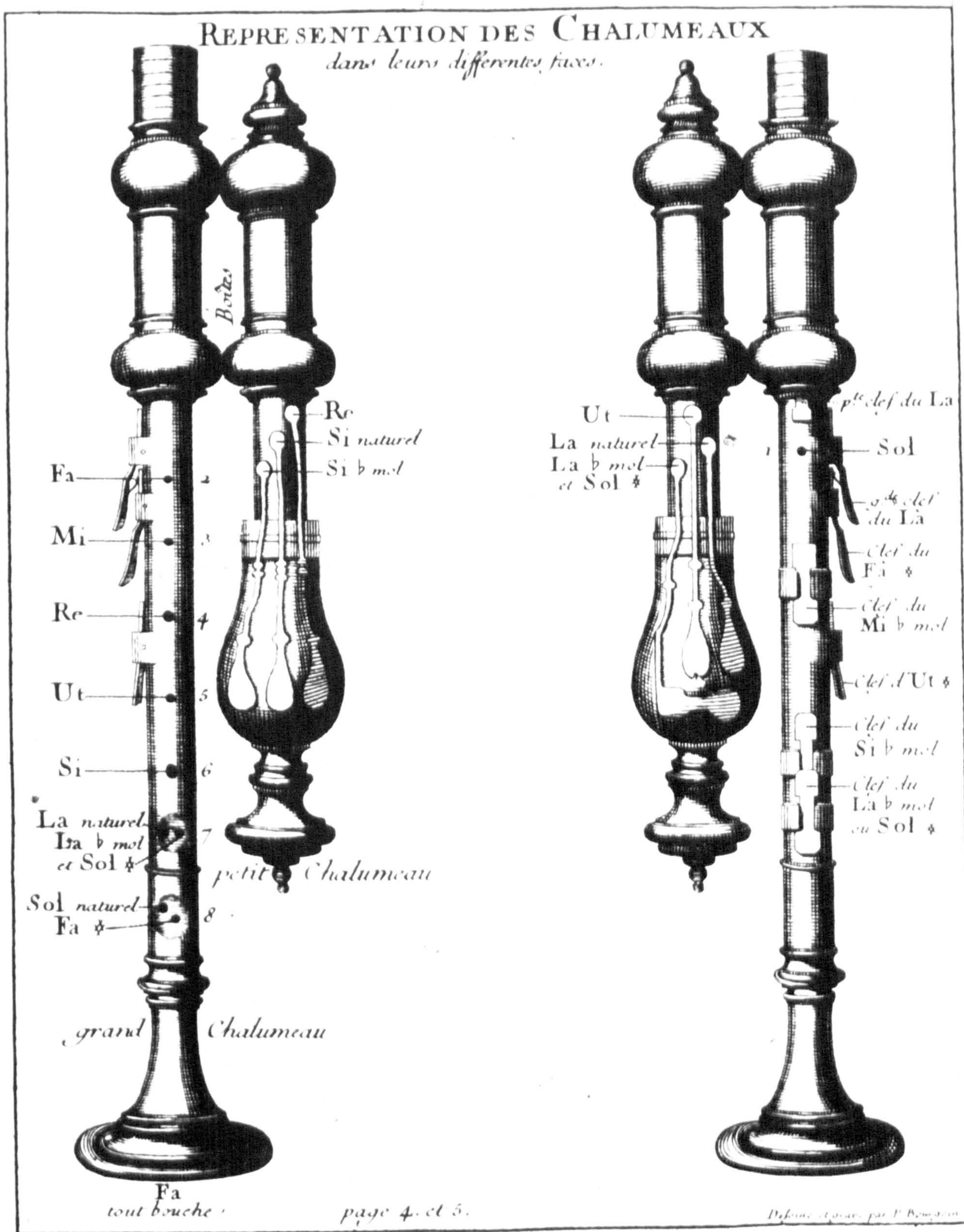
3 See p. 145



page 1.

Jacques Hotteterre Méthode pour la Musette (Paris, 1737)

Engraving of an assembled musette with bellows. Borrowed from Borjon's Traité de la Musette (Lyon, 1672), but reduced in size.



Jacques Hotteterre Méthode pour la Musette (Paris, 1737)

Engraving of front and reverse sides of small and large chanters of the musette. Borrowed from Borjon, and again reduced in size. (Cf a copy of the original version on p. 144. The drawings are identical, but the keys are more clearly named).

Fingering tablature for the musette

[illegible]

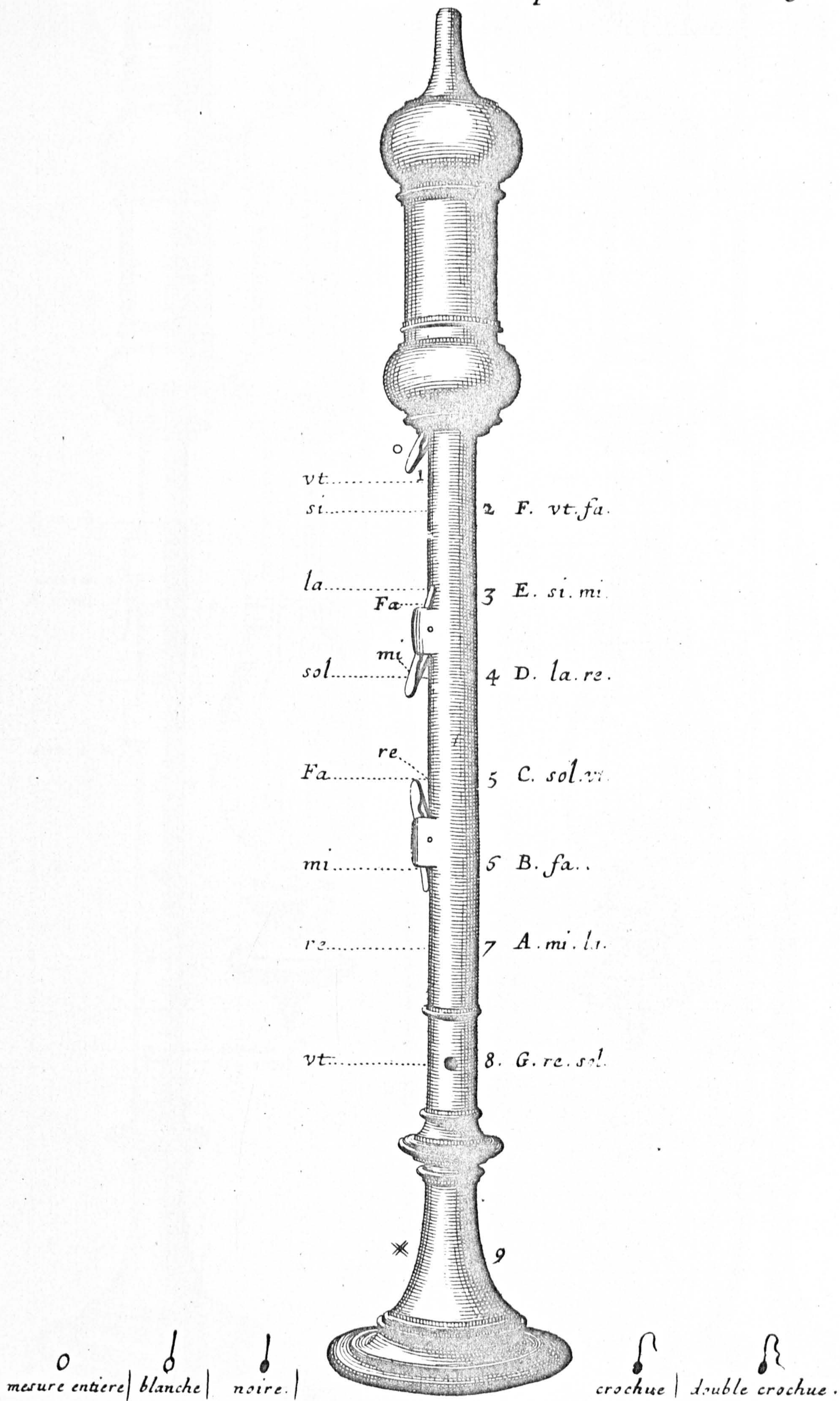
o = Notes produced by opening finger holes

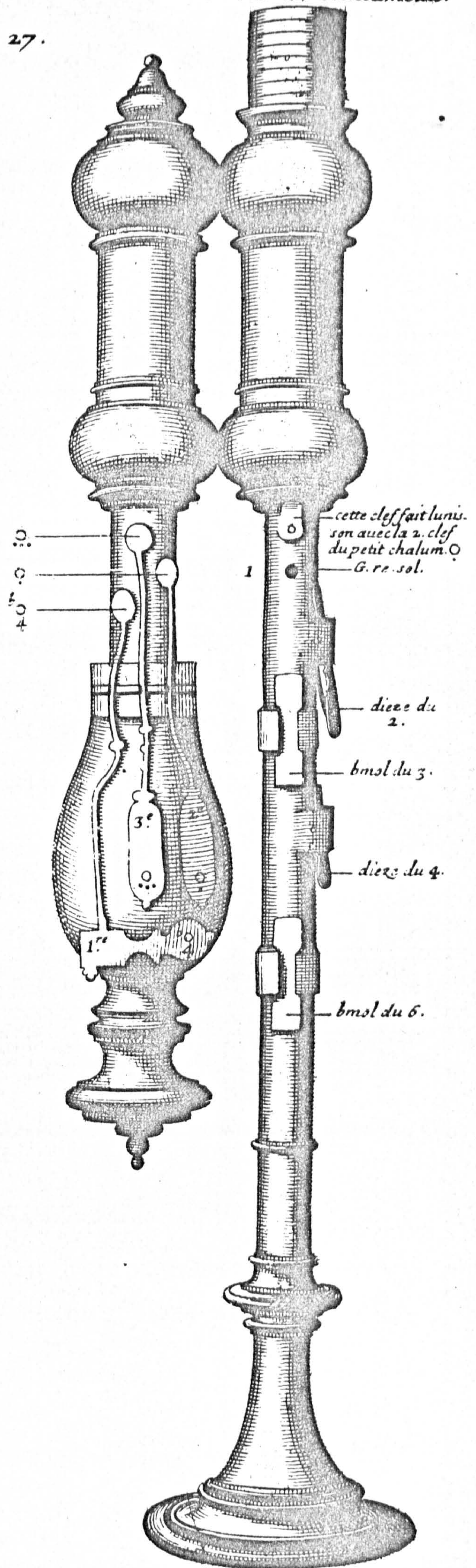
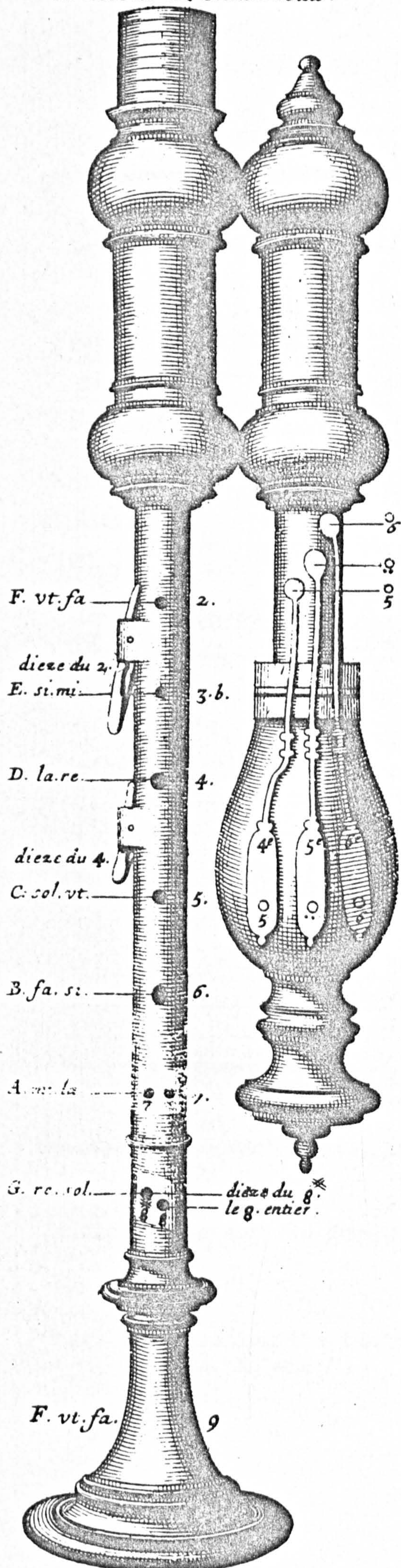
† (i.e. crotchets with tails down) = Notes produced on the large chanter using keys.

♪ (i.e. crotchets with tails up) = Notes produced using the keys on the small chanter.

b_{04} \circ b_{05} = Keys on the reverse of the small chanter
played by the thumb of the right hand.

○ ○ ○ = Keys on the front of the small chanter
.. ... played by the little finger of the left
hand.





Charles Borjon, Traité de la Musette (Lyon, 1672)

Engraving of front and reverse of double chanters. The original of Hotteterre's borrowing shown on p. 141.

Démonstration de tous les Accords du Bourdon

	C Sol Ut	G Re Sol	D Fa Re
Clef de Sol	double O 8 ^{ve}	8 ^{ve} O de la 2 ^e	double O 8 ^{ve}
Clef d'Ut	1 ^{re} O 2 ^e O 3 ^e O 4 ^e O	1 ^{re} O 2 ^e O 3 ^e O 4 ^e O	1 ^{re} O 2 ^e O 3 ^e O 4 ^e O
Clef de Fa	3 ^e O Basse O	8 ^{ve} O Basse O	3 ^e O Basse O

	A Me Fa	B Fa Sol	F Ut Fa
Clef de Sol	double O 8 ^{ve}		8 ^{ve} O de la 2 ^e
Clef d'Ut	1 ^{re} O 2 ^e O 3 ^e O 4 ^e O	1 ^{re} O 2 ^e O 3 ^e O 4 ^e O	double O 8 ^{ve} 1 ^{re} O 2 ^e O 3 ^e O
Clef de Fa	3 ^e O Basse O	3 ^e O Basse O	8 ^{ve} O Basse O

Jacques Hotteterre le Romain Méthode pour la Musette (Paris, 1737)

Chart illustrating the tuning of musette drones for the tonalities of C, G, D, A, B, and F.

(ii) Fingering chart for the one-keyed flute

This chart has been compiled making use of information from Hotteterre le Romain's Principes de la Flûte (Paris, 1707) and incorporates (a) fingerings mentioned in his text but not shown in his chart, e.g. the fingering for F_6 mentioned in the text and illustrated in his trill chart but not included in the fingering table, and (b) corrections, e.g. the fingering for G_6 in his fingering table was correct, but there was an error in Hotteterre's descriptive text which stated that 'all holes but the first and third should be open', since the D_5 sharp key should be left closed.

Hotteterre adapted buttress-finger technique of the recorder to the transverse flute.

You must remember to put your little finger between the sixth hole and the moulding of the foot.¹

All occasions when this technique should be used are indicated in the chart by '7B', i.e. 7(th finger) B(utress). After unstopping the third hole it is necessary to put the sixth finger between the fifth and sixth holes 'which only serves (as does the situation of the little finger) to hold the flute in position, but which is nevertheless important for the freedom of the fingers'.² All occasions when the sixth finger should be used as a buttress are indicated by '6B'. Hotteterre did not mention the use of this technique in the second octave, but I have suggested its use at appropriate points with the indication '6B?'.²

Lasocki has recently argued that 'there seem to have been two different schools of thought in flute playing in regard to tone.

1 Hotteterre, J. Principes (Paris, 1707) Eng. trans., Lasocki, p. 44

2 Ibid., p. 44

The Quantz school got a tone more like that of the modern flute through technique development and differences in the structure of their flutes. Hotteterre would seem to belong to the other school'.¹ Indeed at first sight their writings do suggest a different approach to tone production. Hotteterre states that,

... it is necessary to note that you must blow only gently in doing the low notes²

and this^{is} at variance with the writings of Quantz who states that,

you must note especially that the notes in the low octave must be played more strongly than those in the high octave all the time.³

There is no further evidence to support Lasocki's view, and Hotteterre and Quantz may have been dealing with different aspects of the same problem rather than coming to divergent conclusions about volume of tone. Hotteterre's injunction to the novice to 'blow only gently in doing the low notes' was inserted to warn the beginner of the danger of playing lower octave notes up the octave using the same fingering. In discussing the production of D₅ Hotteterre made this very point.

You must then augment your breath, so that the sound is sharp: though you must not do this too much for fear that by blowing too strongly you will climb an octave higher than necessary.⁴

Quantz was speaking of a later stage in flute technique when one should be trying to increase one's tone in the lower register to counter-balance the more penetrating tone of the flute's higher register.

1 Ibid., p. 43.

2 Ibid., p. 43.

3 Quantz, J. Versuch (Berlin, 1752) Chapter 4, Paragraph 21.

4 Hotteterre, J. Principes (Paris, 1707) p. 44

The highest notes on the transverse flute were seldom used. 'F₆ can almost never be done on the flute', said Hotteterre,¹ and Corrette confirmed this in his flute tutor of c. 1735, adding that G₆ sharp and A₆ were scarcely used except in preluding. The tradition of using very high notes in preludes continued into the mid-18th century. Quantz, who quoted the compass of the flute as up to A₆, never himself played above E₆,² and Quantz himself said that the highest usable note that could invariably be produced was E₆.³

There was some attempt in the chart in Hotteterre's Principes on the notes given below to bring out enharmonic distinctions by using different fingerings or through adjusting the embouchure, but such distinctions were not always clarified, as was mentioned in Chapter 6. It may be inferred from Hotteterre's claim that 'several people do not make this difference'⁴ re the performance of G₄ flat/F₄ sharp that these enharmonic differences were only occasionally carried out, but Hotteterre was only referring to the specific notes G₄ flat/F₄ sharp and was not making (as some recent writers have suggested) a 'blanket statement' about (non)observance of enharmonic distinctions.

1 Ibid., p. 46

2 Tromlitz, J. Über den schönen Ton auf des Flöte (Leipzig, 1800)

3 Quantz, J. Versuch (Berlin, 1752) Chapter 4, Paragraph 20

4 Hotteterre, J. Op. cit., p. 53.

Enharmonic notes	Fingering	Embouchure adjustment
E ₆ flat/D ₆ sharp	Same	None
D ₆ flat/C ₆ sharp	Different	-
B ₅ flat/A ₅ sharp	Same	Some
A ₅ flat/G ₅ sharp	Same	None
G ₅ flat/F ₅ sharp	Different	-
E ₅ flat/D ₅ sharp	Same	Some
B ₄ flat/A ₄ sharp	Same	None
A ₄ flat/G ₄ sharp	Same	None
G ₄ flat/F ₄ sharp	Different*	-
E ₄ flat/D ₄ sharp	Same	None

* The note of which Hotteterre claimed, 'Several people do not make this difference'.

The note C₄ sharp was not shown in Hotteterre's table since the fingering for this semitone was done 'only by artifice',¹ having no recognised fingering. Hotteterre did explain how the note may be obtained, and it is interesting to note that as early as 1707 the downward extension of the compass of the flute was under consideration.

Quantz described the experimentation that was going on c. 1700 in France in the following terms:

About 30 years ago, several people wanted to add one more tone at the end, namely the C. Because of this they made the foot as much longer as was required for a whole tone, and another key was put on in order to have the C sharp. But because it appeared to be detrimental to correct tuning and the tone of the flute, this presumed invention disappeared again, and has not become general.²

1 Hotteterre, J. Principes (Paris, 1707) p. 53.

2 Quantz, J. Versuch (Berlin, 1752) Chapter 1, Paragraph 16

In Majer's Museum Musicum there was a picture and fingering chart of a flute with its lowest notes on C_4 with such an extra key,¹ but an extension to C_4 sharp and C_4 became standard only around 1800.

Notes on the fingering chart on p. 151.

(a) Hotteterre distinguished the natural from the sharps and flats with minims and crotchets respectively. This practice has been retained.

(b) Hotteterre's text describes appropriate embouchure for the correct intonation of almost all the notes in his chart, and under the fingerings I have reflected his intentions through the addition of three symbols, viz.

† = normal embouchure
 ⊗ = with the flute embouchure turned out
 ⊕ = with the flute embouchure turned in, 'which must be done by lowering your head a little'.²

(c) The indication * = a fingering which is not given in Hotteterre's chart but is one described by him in the text of his Principes.

(d) The French violin clef, 'the one most used for flute music',³ has been replaced by the G clef on the second line.

1 Majer, J. Museum Musicum (Nürnberg, 1732) p. 33.

2 Hotteterre, J. Principes (Paris, 1707) p. 50.

3 Ibid., p. 42.

Fingering chart for the one-keyed (transverse) flute.

The chart displays two systems of fingerings for the one-keyed (transverse) flute. The first system covers the notes D, E, F, G, A, B, C, D, E, F, G. The second system covers the notes F, E, D, C, B, A, G, F, E, D. Each note is represented by a circle with a number 1-7 indicating the finger to use. Some circles are filled, some are empty, and some have a cross or a plus sign. The chart is organized into two main sections, each with a musical staff at the top showing the notes and their corresponding fingerings. The first section is for the key of D (one sharp) and the second is for the key of F (one flat).

System 1 (Key of D):

- D: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- E: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- F: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- G: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- A: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- B: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- C: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- D: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- E: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- F: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- G: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)

System 2 (Key of F):

- F: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- E: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- D: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- C: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- B: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- A: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- G: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- F: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- E: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)
- D: 1 (filled), 2 (filled), 3 (filled), 4 (filled), 5 (filled), 6 (filled), 7 (filled)

(See p. 150 for notes).

(iii) Fingering chart for the early 2/3-keyed oboe

In his Principes Hotteterre deals only briefly with the technique of the early oboe, and unlike his writings on the transverse flute and the recorder he does not illustrate his suggested fingerings with a chart. For most notes he merely refers the reader to the section on flute fingerings in Chapter 3 of his flute treatise, but he does point out those oboe fingerings which vary from those he suggested for the flute. The chart on p.154 collates Hotteterre's information on oboe fingering and presents it in tablature form. It also offers a comparison between Hotteterre's fingerings and those of Freillon-Poncein where the latter differ from the former.

In the absence of a fingering chart or a diagram of the instrument it is difficult to tell whether Hotteterre considered holes 3 and 4 to be double holes. Hole 3 was normally a double hole, but on some early instruments hole 4 was a single hole, although in such cases it was generally placed higher up the barrel than was usual to facilitate half-holing. The pictorial evidence of Poncein's charts (see p.156) showing that both holes were double is indisputable, but in Hotteterre's writings the only indication we get that both holes were double is in the description of the fingerings for G_4 flat and G_4 sharp:

G_4 flat is formed by unstopping the 5th hole completely and also half of the fourth G_4 and G_5 sharps, A_4 and A_5 flat are all formed by unstopping half of the 3rd hole.¹

I have taken these comments as justification for indicating holes 3 and 4 as double holes for the Hotteterre fingerings in the chart on p.154/5.

1 Hotteterre, J. Principes (Paris, 1707) p. 87

Hotteterre's flute chart has seven lines to represent the seven operational fingers. On the oboe seven fingers again are operational but the little finger of the right hand, instead of operating one key as on the flute, must operate two (on the oboe) viz. the 'great' and 'less' keys. The latter keys control the notes C_4 and E_4 flat respectively. Eight lines are therefore required for oboe tablature.

Early tutors offered alternative fingerings for certain notes e.g. F_4 sharp, C_5 , D_5 etc., and it cannot be assumed that all such fingerings functioned equally well on any one instrument. Hotteterre in some cases gave an alternative fingering for the oboe to that suggested in his flute tablature but said that either may prove successful. Such alternatives are noted in the chart on p. 154/5.

Later 18th century tutors often list C_4 sharp as missing on the oboe (it was not included in Hotteterre's flute chart nor did he describe its fingerings in the oboe section of his Principes). It was nevertheless a recognised note c. 1700 and Freillon-Poncein indicated how it was produced in his fingering chart. After c. 1730 this note did not appear in tutors, and it did not reappear until a special C_4 sharp key was devised for its production many years later.

Fingering chart for two or three-keyed oboe

Diagram showing fingering charts for two or three-keyed oboe, organized into three sections labeled 1, 2, and 3. The charts are divided into L.H. (Left Hand) and R.H. (Right Hand) columns, with a central column labeled KEYS. The charts display various fingering patterns for notes, including natural, sharp, and flat variations, and are organized into groups of four, five, and six notes.

* = notes described in Hotteterre le Romain's 'Method for learning to play the oboe' from his Principes de la Flûte (Paris, 1707).

† = notes whose fingerings were borrowed from the flute section of Hotteterre's Principes.

'H' denotes fingerings suggested by Hotteterre.

'HA' denotes alternative fingerings suggested by Hotteterre, again taken from his 'Method for learning to play the oboe'.

'P' denotes fingerings listed in Freillon-Poncein's La Véritable Manière (Paris, c. 1700) but these are only given when they differ from or for comparison with Hotteterre's.

Fingering chart for two or three-keyed oboe (continued)

Notes

- (i) Diatonic notes are minims in the chart; chromatic notes are crotchets.
- (ii) Alternative fingerings are given for enharmonic flats where these differ from the sharp counterparts, but in cases where there is no difference (e.g. between the fingerings for C₄ sharp and D₄ flat) the fingering given is always that of the lower sharp note.

11 The alternative fingering described in the 'Method for learning the oboe' in Hotteterre's Principes is identical to that given in Hotteterre's flute chart. Hotteterre described the alternative (flute chart) fingering as being more normal.

2 This was the standard fingering for A₁ flat.

3 Hotteterre's fingering for C_5 sharp \big/ D_5 flat is identical to that for D_5 natural.

4, 5 In no other tutors are these notes produced without the E flat key.

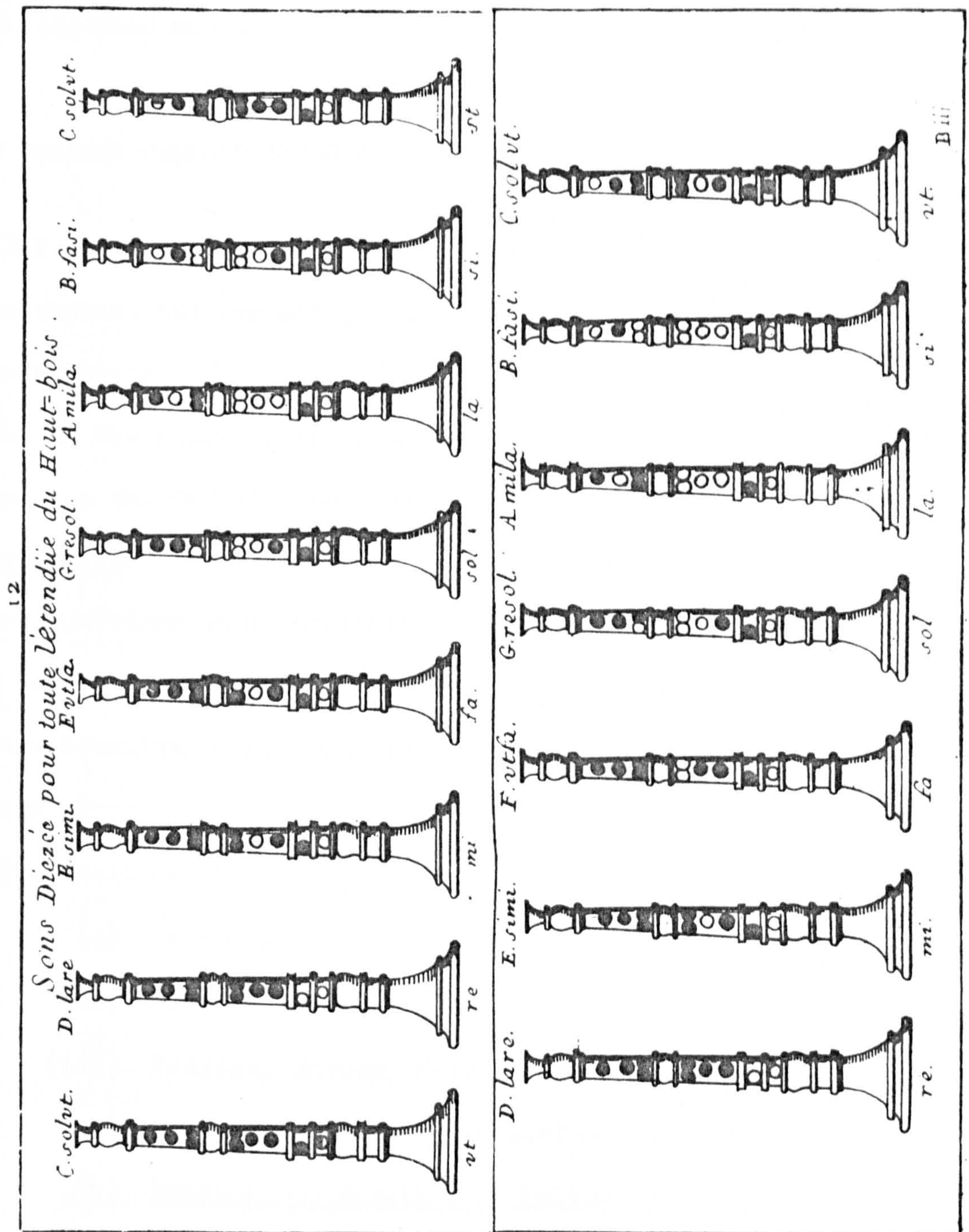
5, 6 Hotteterre's and Poncein's fingerings for A_5 sharp and B_5 flat are exactly the same.

7. This fingering not mentioned in any other tutor.

8 'D₆ flat is also done at the octave above by forcing the breath and squeezing the reed with the lips', according to Hotteterre's *Principes*, p. 88.

9 Hotteterre was advanced for his time in his suggestions for the fingering of D₅. 'The next note D₅ was sounded with the little finger lifted and the great key fully open'.

Until about the mid-century this fingering served to force the octave harmonic for D₆. Thereafter the flute fingering was commonly used; Hotteterre anticipated this by 40 years.



Freillon-Poncein La Véritable Manière (Paris, 1700)
 Fingering chart. Note the presence of double holes.

Chapter 8

French woodwind music

Court musical organisations c. 1700

Before 1625 the outdoor music of Louis III consisted of two treble shawms, two cornetts, four tenor shawms, two trombones and two bass shawms. The scope of this musical organisation was increased at the court of Louis XIV (1643-1715), and musicians were employed in the Chapel, the Chamber Music, and in the music of the Grande Écurie. In no other court in Europe was there such a large body of musicians whose position was so secure or lucrative. Appointments to the Grande Écurie were eagerly sought after, and when granted were hereditary and could be willed to whom the occupier of the position chose.

The music of the Grande Écurie was divided into five bodies:

- (i) Trumpets
- (ii) Fifes and drums
- (iii) Violins, Shawms, Sackbuts, and Cornetts
- (iv) Crumhorns and Trumpets marine
- (v) Hautbois et Musettes de Poitou

One of the many functions of this organisation was to provide music for fêtes and tournaments, and on such occasions the personnel consisted of:

- 12 dessus de hautbois
- 2 contrebasses de hautbois
- 2 tailles de hautbois
- 2 basses de hautbois

1 Musical organisations described by Pontécoulant, L. G. Le D.
in Organographie (Paris, 1861) Organs I, pp. 81-82

2 dessus de cornet
 2 tailles de cromorne
 2 quintes de cromorne
 2 basses de cromorne
 2 trompettes marines
 12 trompettes ordinaires
 1 timbale

La Bande royale des Hautbois was formed under the direction of François I. Each member of the band had to play the viol as well as the oboe, the former instrument later being replaced by the violin. When the Bande spéciale des Violons was created by Henri III, the oboe players were no longer required to 'double' on violin, but their contracts of employment continued to bear the title 'Hautbois et Violon du Roi'. During the 16th century the Bande des Hautbois consisted of twelve members who played oboes, and two each of sackbuts, viols, and cornetts. Trombones and cornets à bouquin gradually disappeared from the group, but again the old title of the post lingered on in legal documents. In the 17th century the Bande des Hautbois was amalgamated with the Hautbois et Musettes du Poitou - a select group of four players, which later expanded to six. They played:

Dessus de hautbois
 Haute-contre de hautbois
 Taille de hautbois
 Basson*

The histories of court musical organisations are in essence catalogues of internal arrangements about rights of succession,

* Original spelling of such titles is retained

1 Information about the Bande des Hautbois in Thoiry, E.
Les Hotelleries (Paris, 1894) p. 16

conditions of service, payment, and methods of appointment. The following new account of the Hotteterre family contribution to the Grands Hautbois de la Grande Écurie shows how the system of hereditary and bequeathed appointments functioned.¹

1. Nicolas I Hotteterre succeeded François Viau in 1662 as 'Dessus de Hautbois et Haute-contre de Violon'.²
2. Jean Hannes Desjardins succeeded Nicolas I Hotteterre in 1694.³
3. Jean II Hotteterre (called le Jeune) succeeded Elie Charles James as 'Basse de Hautbois et Taille de Violon'.⁴
4. Jean III Hotteterre (son of Nicolas and nephew of Jean II) in turn succeeded to Jean II's position in 1669, but died in 1683.⁵
5. Jean IV Hotteterre (called Jeannot) who had been active in court presentations since 1676 replaced Jean III in 1683. He chose his successor in 1723, and it is therefore certain that he was amongst the Douze Grands Hautbois du Roi who played at the wedding of Louis XV on 26th October, 1722. He played bassoon beside his cousins Jacques Hotteterre (called le Romain), Nicolas II Hotteterre (called Colin), and Pierre Chédeville.⁶ Esprit-Phillipe Chédeville (cousin of Jean IV Hotteterre) succeeded to Jean's position in 1723.
6. Martin Toussaint was 'Haute-contre de Hautbois et Haute-contre de Violon', and was succeeded by Martin Hotteterre in 1664, but the latter gave up his position to his cousin in 1667 when he joined the Hautbois et Musettes du Poitou.⁷
7. Jean V Hotteterre succeeded Martin Hotteterre (his father) only on his death in 1712, although he had been named as his father's successor as early as 17th May, 1699.⁸
8. Pierre de Houteville was succeeded by Louis I Hotteterre (son of Nicolas I Hotteterre) as 'Saqueboute et Taille de Violon'.⁹ On

¹ Account collated from the information of Casley, Thoinan, and Manger (see Bibliography for references).

footnotes for p. 160

1 Thoinan, E. op. cit., pp. 30-31.

2 Ibid., p. 43.

3 Ibid., pp. 37-43.

4 Pontéoulant : op. cit., p. 82.

22nd January, 1714 Louis I designated his position to his nephew, Pierre Chédeville.

9. Nicolas II Hotteterre served as 'Hautbois du Roi' until his death in 1727.¹ Denis Martel replaced Nicolas II temporarily until 1728. George-Michel Daunates succeeded Nicolas II Hotteterre permanently in 1728.

10. Jacques-Jean Hotteterre succeeded Jean Laudet on 22nd January, 1692 as 'Basse de Hautbois et Taille de Violon'.² He later succeeded Jacques Marillet de Bonnefons as 'Saqueboute et Dessus de Violon' in the Bande des Grande Hautbois, but he died in February, 1720.

Jean Bernier succeeded Jacques-Jean Hotteterre in the same month.

11. Jacques Hotteterre le Romain succeeded Jacques-Jean in 1708 as 'Basse de Hautbois et Basse de Violon', the title of 'Ordinaire de la Musique du Roi' having been conferred on him in the previous year.³ He took up his post as 'Flûte de la Chambre du Roi' in 1712, a fact confirmed by a Royal Privilege. René Pignon-Descôteaux gave up his position to Jacques in 1717.

12. Antoine-Jacques Hotteterre (son of le Romain) took up his father's position as 'Basson' in June, 1746 but died shortly afterwards.

Jean-Baptiste Hotteterre (brother of Antoine-Jacques) succeeded him on the 7th July, 1748. He died in 1770.

Woodwind performers were involved in the musical organisation of the Chapel Royal which consisted of:⁴

1 composer, in charge of the composition of masses and motets

4 orchestral conductors, of whom two were also required to educate the children of the Choir School

4 organists

footnotes for p. 161.

1. Thorman, E. op. cit. p. 21.

2. This list is compiled from numerous references in the Thorman and Casley books (see Bibliography)

13 sopranos
 18 altos
 21 tenors
 5 basses
 1 copyist
 4 dessus de violon
 2 violes
 2 flûtes d'Allemagne
 2 basses de viole
 1 contrebasse de viole
 2 bassons
 1 basse de cromorne

Nicolas I Hotteterre was received into the Chapel Royal as 'Basson' in 1668. Joseph Marchand succeeded Nicolas I Hotteterre as 'Basse de Violon'.¹

Jacques and André Philidor played 'Basson' and 'Basse de Cromorne' respectively in the Chapel Royal.

Various woodwind performers took part in the orchestra for operatic performances as part of their duties in the music of the Grande Écurie.

They were not always identified by name, and indeed the appearance of some names in contemporary programmes or newspaper reviews reflects the social advantages and prestige which were attached to being a member of the Grande Écurie, as it was not normal for the names of mere musicians to be given in such contexts. The following list names the productions in which woodwind performers took part (where their identities are known) during the years 1657-1677.²

1. L'Amour malade (1657) Jean I Hotteterre played flute, oboe, and flageolet.

2. Alcidiane (1658) Jean I Hotteterre played flute, oboe, and flageolet.

3. Les Noces de Village (1663) Jean I Hotteterre played flute etc.

4. Le Ballet des Muses (1666) Jean Hotteterre played flute.

5. Le Carnaval (1668) Jean II Hotteterre played flute.

6. Georges Dandin (1668) Jean II Hotteterre played flute in this intermezzo in La Fête de Versailles.

7. Serse (1660) Martin Hotteterre played musette(?) in this production of Cavalli's opera composed to celebrate the marriage of Louis XIV.

8. Plaisirs de l'Île enchantée (1664) Louis I Hotteterre played flute.

9. Alys Jean IV Hotteterre played in this presentation before Court at Saint-Germain on 10th January, 1676.

10. Zéphir Jean IV Hotteterre played in the scene 'La Gloire' with his relations Louis, Colin, Jean III, and Nicolas I Hotteterre, and de Plumet. The Philidors (elder and younger) played crumhorn. In other scenes including 'Songe' [The Dream] and 'Dieu des Fleuves' [God of the Rivers], they all played flute, and were joined by the distinguished flautists Philbert, Descôteaux, and Piesche.

11. Isis This work was presented at Saint-Germain during the carnival of 1677. The four satyres [jouans de flûte] were Louis, Jean, Nicolas, and Jeannot Hotteterre.

Other musicians who played flute, oboe, and musette in court productions included Jean Destouches, Jean Brumet and the Philidors.

Musical forms

The block graph on p.164 displays the relative popularity of different types of composition for flute which were current during the period 1690-1750 in France. One must be aware of the misconceptions which may arise from such generalised surveys:

(i) There was a considerable output of French concerto-writing for woodwinds during the period, but this, it is important to note, was not evenly distributed over all the years from 1690-1750 as is implied by the chart; in fact, no French wind concertos were composed before c. 1725.

(ii) The amount of unaccompanied solo wind music during the period according to the chart appears to have been small, but this slightly erroneous impression is due to the fact that the chart does not take into account the considerable number of 'improvised' Preludes by Freillon-Poncein and Hotteterre le Romain.

(iii) Orchestral woodwind writing is not represented. Having stated such reservations, the chart nevertheless clearly indicates the main areas of interest of composers of flute music (and by inference of wind music in general) during the early 18th century in France.

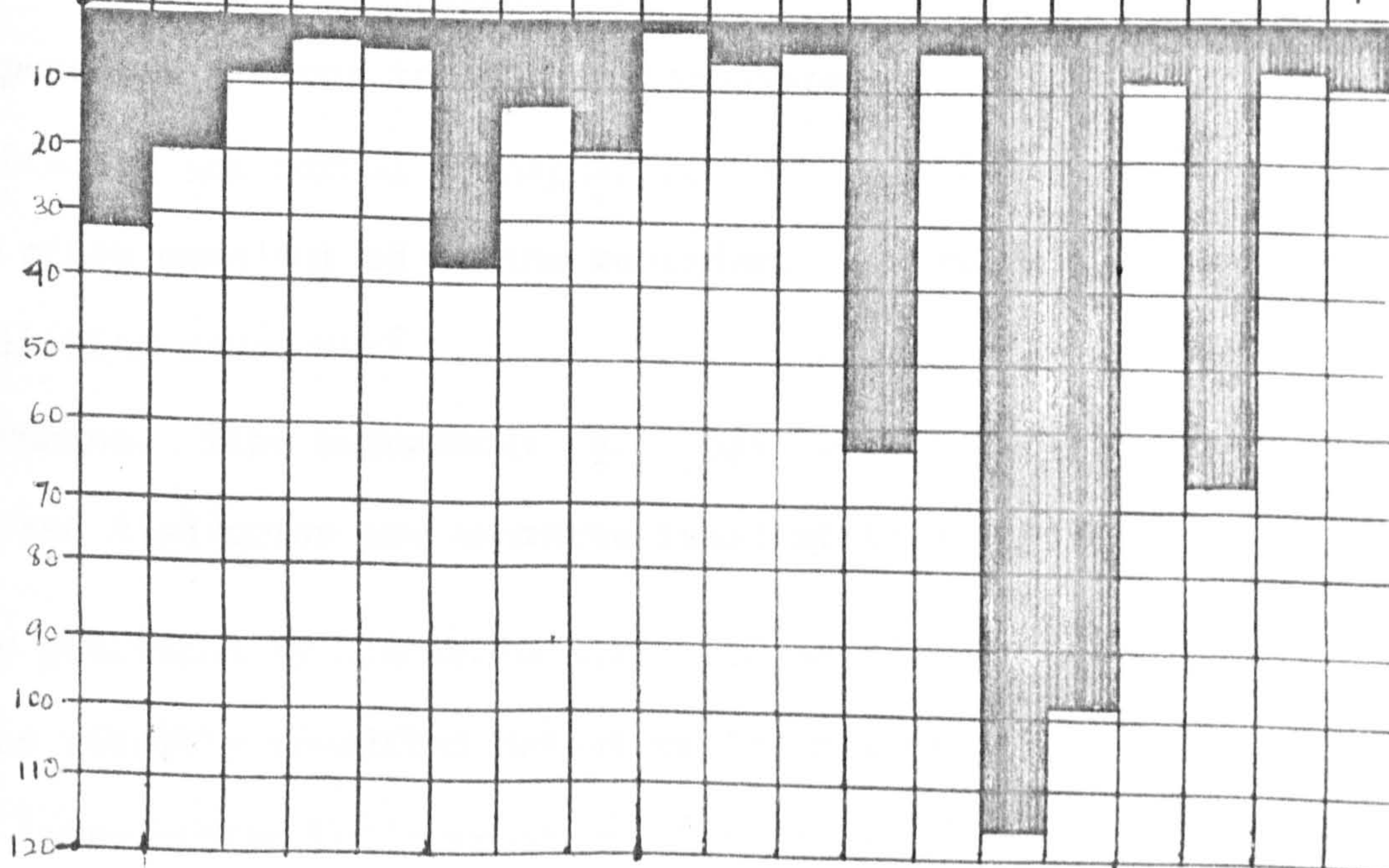
I intend to give only a brief account of some forms (solo sonata, suites for two treble instruments, etc.) which numerically-speaking were demonstrably important, but which in my estimation did not exhibit the most distinctive contributions - yet little discussed - of woodwind composers during the period 1690-1750. Three such aspects which will be considered in later chapters and illustrated in the music examples of Volume II are:

- (i) orchestral scoring for woodwinds in opera and ballet,
- (ii) the beginning of a French concerto tradition for woodwinds, and
- (iii) the practice of improvising solo preludes on woodwinds.

Block graph showing popularity of types of woodwind composition.

Composition types *

Names of composers	Suites (2 flutes)	Suites (1 fl. + cont.)	Suites (2 fl. + cont.)	Books of pieces (2 fl. etc.)	Books of pieces (2 fl. + cont.)	Concertos à 1	Concertos à 2	Concertos à 3	Concertos à 4	Concertos à 5	Flute solos	Duets (2 fl. etc.)	Airs and Brunielles	Sonatas (fl. + cont.)	Sonatas (2 fl. + cont.)	Sonatas (3 fl. + cont.)	Sonatas (2 fl. etc.)	Sonatas (3 fl. etc.)	True sonatas
Aubert, J. 1689-1753	3																		
Batte, M. de la 1670-1743	7	6	2	3		1													
Blavet M. 1700-1765	12											2	3	27			7		
Boismortier, J. 1691-1755							8	1	1	6				32	29	8	48	6	1
Buffardin, G. 1690-1765						1									1			1	
Chediville, N. 1705-1752		(3)												7			3		
Comperin F. 1665-1733		(1)	4			4	4					$\frac{1}{(4)}$			1				
Hotte, J. † 1701	4	6			2						3	4	1		6				
Naulot J.C. † 1702						6						51		43	$\frac{37}{(6)}$		8		
Philidor, A. D 1681-1782					1									1					
Philidor F. D 1689-1717		(1)			1														
Philidor, P. 1681-1731	6																		2
Rameau, J. 1683-1764			(1)														1		
Martini, M. 1656-1728			1								1								1
Corrette, M. 1709-1795		1				25		18						6	18				
Benoncini, G. 1670-1750	2																		5
Totals	32	20	8	3	4	37	12	19	1	6	4	63	4	116	98	8	67	7	9



* This is of necessity a rough categorisation. Numbers in brackets indicate compositions of approximately the same genre as that shown in the headings, usually called something else.

Suites for two treble instruments without continuo

Large quantities of this genre were composed in France until c. 1740. The title pages indicate that instrumentation could be very flexible; most suites were described as being suitable for 'two flutes, oboes, violins, musettes, etc.'. The inclusion of musettes amongst the list of instruments for which such music was intended placed limitations of technique and modulation on composers due to the presence of drones which determined the rather inflexible harmonic orientation of the music. The similar ranges of the instrumental parts within one piece made these works suited to two instruments of the same size, e.g. two treble recorders, and the main composers of such pieces were the Chédevilles, Naudot, Bâton, Aubert, and Boismortier.

Brief descriptions of four suites for two treble instruments which are readily available in modern editions will illustrate the characteristics of this type of composition.

Gerrit Vellekoop in 1958 edited two suites by Hotteterre le Romain.¹ Le Romain's Première Suite de Pièces (Paris, 1712) was originally composed in B minor to suit the transverse flute, but the editor has effected the normal transposition up a minor 3rd into the key of D minor more suited to the recorder. The suite is made up of the following movements:

1. Duo, Gravement. Time signature: ϕ . Key: D minor.

Dotted notes and tied notes are characteristic of this movement.

¹ These were published by XYZ Amsterdam, 1958 as XYZ 641 and 718. Alan Davis has recently re-edited Hotteterre's Premier Livre with a historical introduction and commentary (Birmingham, 1971), as an unpublished MA dissertation.

The opening section leads without a break into a section marked 'Gay' in which the indication 'croches égaux' emphasises the contrast between the smooth quaver imitative writing and the previous dotted section.

2. Allemande. C. D minor.

The writing here is freely imitative.

Allemande



3. Rondeau, Tendre. 'Les Tourterelles' 2. D minor.

See comments on tonguing of the opening passage in Chapter 6, p. 86.

The writing is again freely imitative.

Gracieusement



4. Rondeau, Gay. 2. D minor.

5. Gigue. $\frac{6}{8}$ D minor.

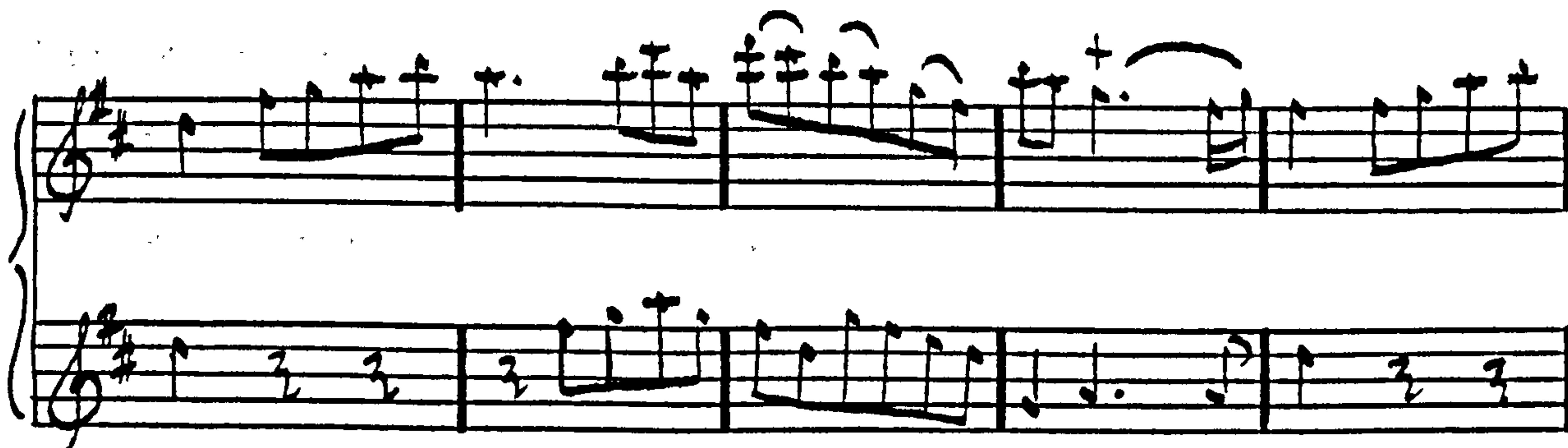
6. Passacaille. $\frac{3}{4}$ D minor.

Movement based on a repeated descending four-note motive traditional in passacaglia composition. The middle section brightens into the tonic major (the only variety of mode in the whole suite) and returns to D minor for the final section of the movement.

Opening of Passacaille



Major mode central section



Hotteterre's Deuxième Suite de Pièces Op. 6 (Paris, 1717) is made up of the following movements:

1. Duo, Très tendrement. 'Les heureux moments'. C. G major (for flute); B flat major (for recorder).

This section is linked to one marked 'Gay, et croches égales'.

2. Here two themes are combined in invertible counterpoint.

Gay, et croches égales



Inversion:



There is a return to the opening mood and tempo for the final three bars of this movement.

2. Allemande, Majestueusement et piquée. 'La Marechalle de Villars'

Time signature: C. Key: B flat major.

3. Musette (croches pointées). 2. B flat major.

4. Menuet. 3. B flat major.

This movement has almost continual parallel 3rds and 6ths.



5. Gigue $\frac{6}{8}$ B flat major.

Freely imitative writing.

Légerement



6. Sarabande, Lentement. 'La St. Maurice'. 3. B flat major.

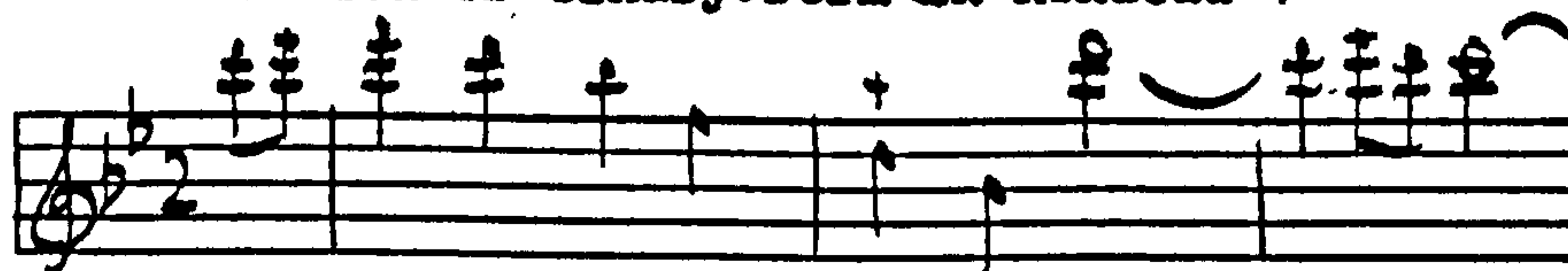
Typical second-beat-in-the-bar emphasis.

7. Rondeau, Gay. 2. B flat major.

Second Rondeau in the tonic minor (B flat minor).

In both Rondeaux the second half of the binary form begins with an oblique reference to the opening of the first section of the binary form, but in an inversion - a device more consciously exploited in many of J. S. Bach's suite movements.

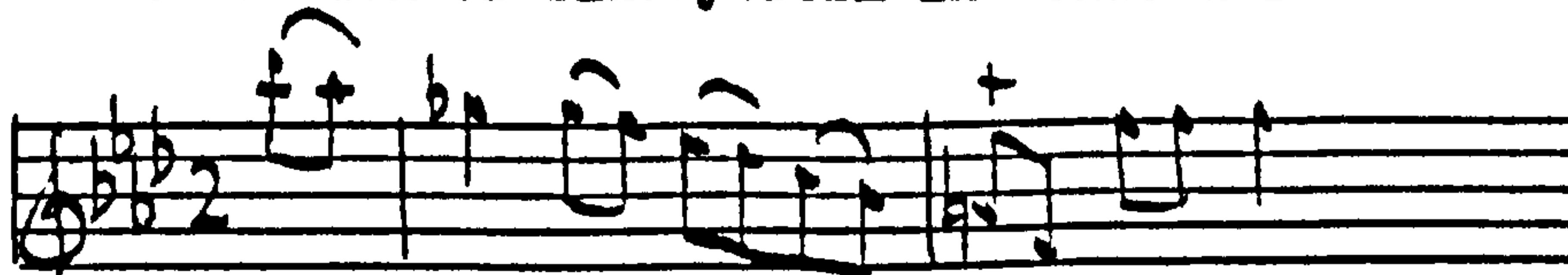
First section of binary form in Rondeau 1



Second section



First section of binary form in Rondeau 2



Second section



8. Gigue. $\frac{6}{8}$ B flat major.

9. 'Contrefaiseurs' 3. B flat major.

Dotted rhythms are characteristic of this movement. Linked to section marked 'Gay' in $\frac{6}{8}$ time.

Walter Upmeyer has edited two Pastoral Sonatas for two flutes, violins or oboes by Nicolas Chédeville (Paris, 1739).¹ These are the third and sixth of a set of seven which comprised Les Galanteries Amusantes.

1. These are published as Nagels Musik-Archiv 26.



A PARIS

Chez { *L'Auteur rue S.^t Honoré près l'entrée du Four.*
M.^{de} Boivin M.^{de} rue S.^t Honoré à la Règle d'Or.
Le S.^r Le Clerc M.^d rue du Roule à la Croix d'Or

Chédeville le Cadet Les Galantries Amusantes Op. 8 (Paris, c.1739)

Title page showing courtiers in an attractive garden landscape dancing a round dance to the tunes of a musette.

The series contained sonatas dedicated to the fair sex of seven countries:

1. 'La Française'
2. 'L'Espagnole'
3. 'L'Allemande'
4. 'La Tourquoise'
5. 'La Chinoise'
6. 'L'Italienne'
7. 'La Polonaise'

The third suite contains the following movements:

1. Prelude, Lentement. C . A minor (for flute); C minor (for recorder).

Dotted notes and scale passages in short imitative phrases are characteristic. There is some crossing of parts, but Flute I is the dominant voice, always taking the lead in imitations.

Prelude

Lentement



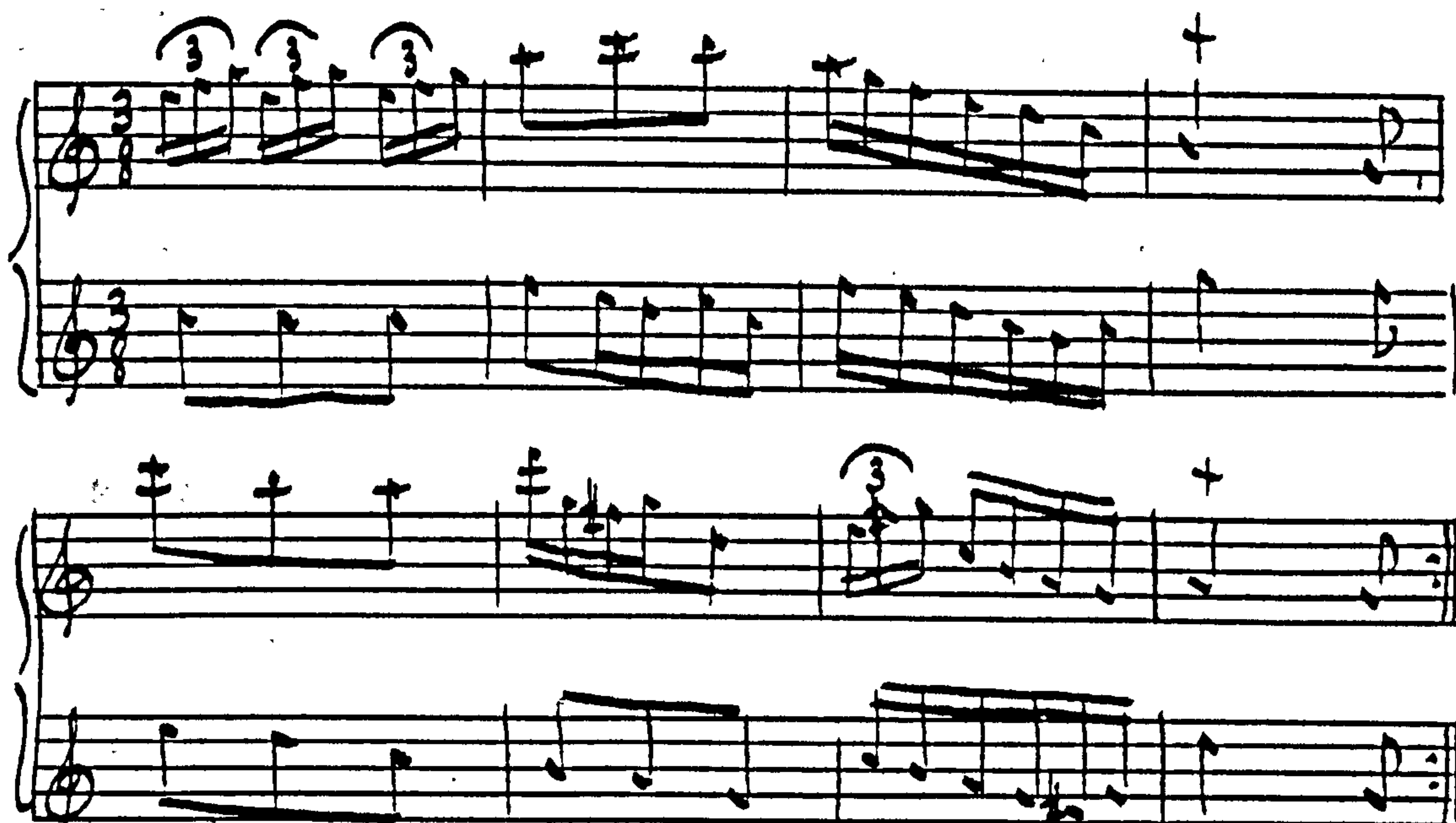
2. 'L'Impératrice', Légèrement. $\frac{2}{4}$ C minor.
3. 'La Palatine', Musette, Nonchalament. 2. C major.

The first of three movements in the tonic major.

4. Gavotte allemande. $\frac{2}{4}$ C major.
5. Menuet allemand. $\frac{3}{8}$ C major.

The use of triplet semiquavers in duple division of the beat is

typical of the new style galant.



[Semi-quavers only slightly unequal (cf. p. 97), with synchronisation in second last bar].

6. Sarabande. $\frac{3}{4}$ C minor

7. Légèrement (Rondeau). $\frac{2}{4}$ C minor.

Chédeville's sixth suite comprises the following movements:

1. Vivement. $\frac{2}{4}$ C major.

2. 'La Signora', Gracieusement. $\frac{3}{8}$ C major.

This movement is composed in rondo form and makes use of semi-quaver triplets similar to Movement 5 of Chédeville's Suite 'L'Allemande' mentioned above.

3. 'Les Syncopes', Légèrement. $\frac{1}{2}$ C major.

Thematic material receives fugato treatment. The countersubject has frequent syncopations - hence the title of the movement. In the final bars of both sections of the binary form the parts are jointly syncopated.



4. Loure. $\frac{6}{4}$ C major.

5. Menuet italien. $\frac{3}{8}$ C major.

Suites and sonatas for solo woodwind with continuo accompaniment

Woodwind composers followed the French clavecinist tradition of disposing the movements of their suites in no established order. The basic movements of the suite which constituted an Allemande, Courante, Sarabande, and Gigue (optional) were often interspersed with other dance types such as the Gavotte, Menuet, and Rondeau. That the suite was considered simply as a selection of dance movements in any one key by woodwind composers is demonstrated by the frequent repetition of dance types within one suite. The selection of which movements were to be performed on a particular occasion was left in the hands of the player, although (presumably) he would be expected not to choose to play more than one Allemande, for example, in any given performance of a particular suite.

Woodwind composers also followed the keyboard tradition of Courante writing, and in general did not adopt the Italian quick $\frac{3}{4}$ movement, remaining in favour of a slower tempo in $\frac{6}{4}$, 3, or $\frac{3}{2}$ time. The following example from Anne Danican-Philidor's Premier Livre de Pièces pour la Flûte traversière, Flûte-à-bec, Violon, et Hautbois (Paris, 1712) illustrates this French style of Courante, and the indication 'croches ⁱⁿégales' in the case of this piece suggests a rather gentle triplet dotting applied both to the solo part and the accompaniment.



The great variety and frequent duplication of dance types detracted from the cyclic unity of the woodwind suite, although the unity of key (but not of mode) was strictly observed. The titles of the movements from Hotteterre le Romain's Suite in G Major for flute and continuo (Paris, 1708) are indicative of the change which had overtaken the individual dance movements, the suite becoming a series of genre pieces with titles suggesting their point of inspiration.

1. Prélude

2. Allemande, L'Atalante'

3. Sarabande, 'La Fidèle'

4. Petit air tendre

5. Gavotte en rondeau, 'La Maillebois'

6. Rondeau, 'Le Baron'

7. Allemande, 'La Cascade de Saint Cloud'
8. Sarabande, 'La Guimon'
9. Courante, 'L'Indifférente'
10. Rondeau tendre, 'Le Plaignif'
11. Menuet tendre, 'Le Mignon'
12. Gigue, 'L'Italienne'

This practice of giving titles to suite movements was ^{taken over by} ~~derived from~~ contemporary English keyboard composers, and its adoption satisfied the French penchant for linking literary allusions with music, though in no sense was the musical content of such movements necessarily programmatic.

In lute and clavecin suites the Prelude was the only non-dance movement, and a highly rhapsodic interpretation was characteristic of some of Louis Couperin's Preludes; this style was notated through the use of free time values. The nearest equivalent of this improvisatory style in woodwind terms is to be found in the unbarred Preludes of Hotteterre le Romain's L'Art de Pré luder (Paris, 1719). Preludes in woodwind suites are played in strict time.

Sonatas for solo woodwind and continuo contain some dance movements. For example, Naudot's Sonata in G major Op. 11, No. 5 for flute or musette contains two dance movements, viz. a Sarabande and Gigue, out of a possible five. Anne Danican-Philidor's Sonata in D minor from his Premier Livre de Pièces contains one dance movement, viz. a Courante, again out of a possible five. Other movements in these sonatas are headed simply with either a tempo indication or else with the term 'Fugue'. The latter are simple two-part contrapuntal pieces which show none of the polyphonic complexities of fugues by J. S. Bach. The R.H. of the continuo is non-thematic and merely supplies suitable harmonies for the two outer voices.

Contrapuntal subtleties, however, were not altogether lacking, and indeed the final movement of the Philidor sonata mentioned above presented two themes in invertible counterpoint.

Fugue

Theme A

Theme B

At bar 6:

Theme B

Theme A

Unaccompanied solo woodwind music

Apart from the large collection of Preludes by Freillon-Poncein and Hotteterre le Romain the amount of unaccompanied solo music for woodwinds was small. Hotteterre wrote two pieces for solo flute or recorder as his contribution to the traditions of battle and echo pieces, respectively entitled La Guerre and Echos. In the ^{printed edition} ~~Ms.~~ of the latter the music is marked off in sections 'Fort' and 'Doux' (see p.173), and the lengths of phrases echoed constantly vary. The effectiveness of the piece is enhanced if it is performed by two players, one (off-stage) playing the echoes.

ECHOS 69 Pour la Flûte traversière seule.

The musical score is titled "ECHOS" and is for a solo recorder or transverse flute. It consists of five staves of music. The first staff has a treble clef, a key signature of one sharp (F#), and a common time signature (C). The music is written in a highly ornate, Baroque style with many slurs and ornaments. The first staff has a "Fort" dynamic marking at the beginning and a "Doux" marking later. The subsequent staves continue the piece with various dynamics and articulations. The score is a photocopy of a negative microfilm print, showing some grain and artifacts.

Jacques Hotteterre Echos for solo recorder or transverse flute

Note the indications F and D (Fort and Doux). Photocopy of a negative microfilm print.

Freillon-Poncein and Hotteterre did much to encourage amongst woodwind players the practice of improvising a Prelude in the key of a piece about to be performed. It served the very simple purposes of (i) 'settling in' the player's lip, and (ii) getting his instrument up to the correct playing temperature before tuning for a performance with continuo accompaniment. The detailed instructions which Hotteterre gave in his L'Art de Préluder about performing Preludes and the copious musical examples he provided (see Volume II, pp.68-85) suggest that Hotteterre was less than satisfied with contemporary performers' attempts at improvising Preludes. If they were seldom played adequately c. 1700, the problems of reviving a lost tradition must be doubly acute two and a half centuries later.

Harmonic progressions

Especially at cadences and in melodic sequences the harmonic progressions of accompanied woodwind music of the period 1690-1750 in France became predictable and stereotyped. At cadences the use of a secondary 7th chord followed by a 4 - 3 suspension and resolution was almost automatic. This possibly arose due to French concern over the 'note sensible' (Hotteterre wrote at length about it in Chapter 7 of his L'Art de Préluder) and French composers liked to clinch even transient modulations; the cadence they devised was the most unequivocal way of achieving this, with or without hemiola. Chromatic chords were rare.

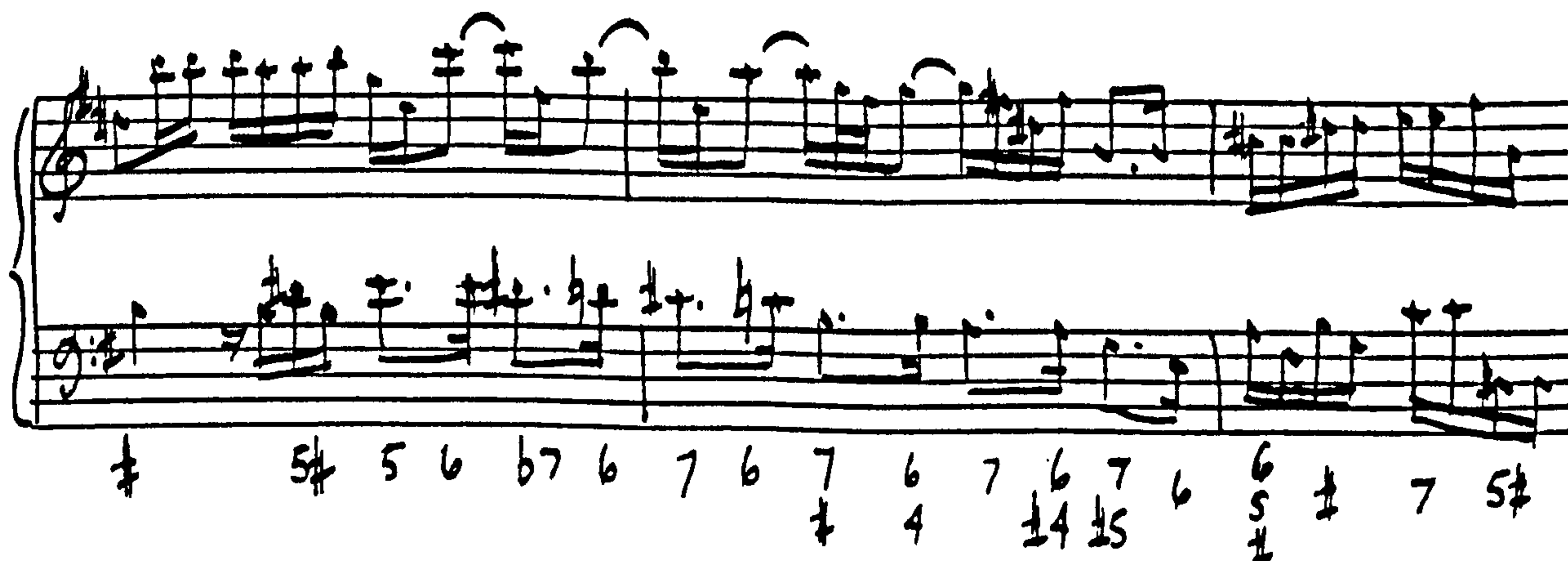
In the solo writing for woodwinds there is a strong sense of harmonic underlay. Indeed the melodic lines of Hotteterre's Preludes at times come close to providing a 'self-harmonisation', and it is not difficult to imagine the effect of the intelligent player

judiciously emphasising the harmonically important notes of a melody in a resonant room. The skill exhibited in writing this type of music for woodwinds shows Hotteterre's appreciation of subtle qualities to which the ear may (often subconsciously) respond. The 'harmonic approach' to writing Preludes was emphasised by Hotteterre in his L'Art de Préluder. His methods of extemporisation to produce melodic extension were based on progression through implicit or explicit modulation: each added phrase bridged the gap between the cadence of the previous key centre and that of the following cadence.

In the case of Hotteterre's Duo le Fargis et Rondeau champêtre the harmonic implications of the two-part writing for flutes or recorders are so clear that it would seem preferable to perform this piece in its original version rather than with the addition of a continuo which the composer supplied at a later date. In the case of Boismortier's Concerto for 5 flutes Op. 15 No. 1 (see Volume II, pp. 113-142) the continuo part was again optional, but in the event of there not being five flutes for a performance it was the composer's intention that the work should be performed with (say) three flutes and the continuo filling in the harmony and the remainder of the parts where possible.

J. Hotteterre le Romain and other wind composers of his period made use of descending bass motives:

Suite in E minor Allemande, 'La Fontainebleau' J. Hotteterre



Suite in E minor Sarabande, 'Le Départ'

J. Hotteterre



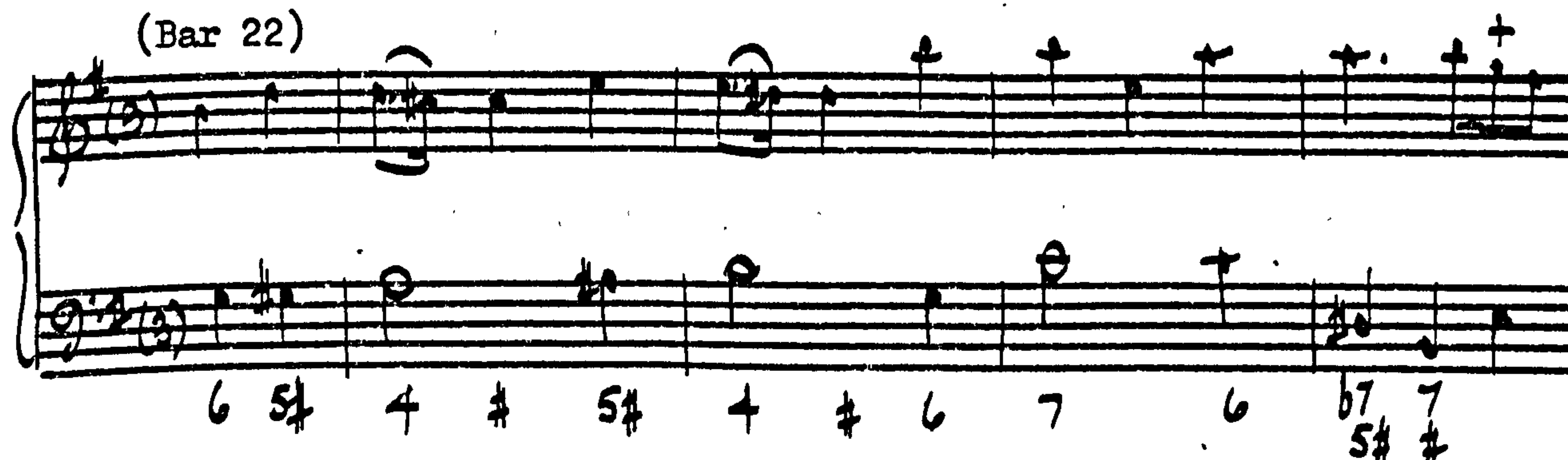
In some cases such patterns were repeated over and over, and the movement thus evolved into a chaconne or passacaglia (see Freillon-Poncein's Passacaille for flute and bass, Volume II, pp. 106 - 113).

Some suite movements demonstrated a cyclic harmonic approach to composition. The harmonic framework of the Sarabande, ^{for example,} from Hotteterre's Suite in E minor was basically identical to that of the Air from the same suite.

Suite in E minor Sarabande, 'Le Départ'

J. Hotteterre

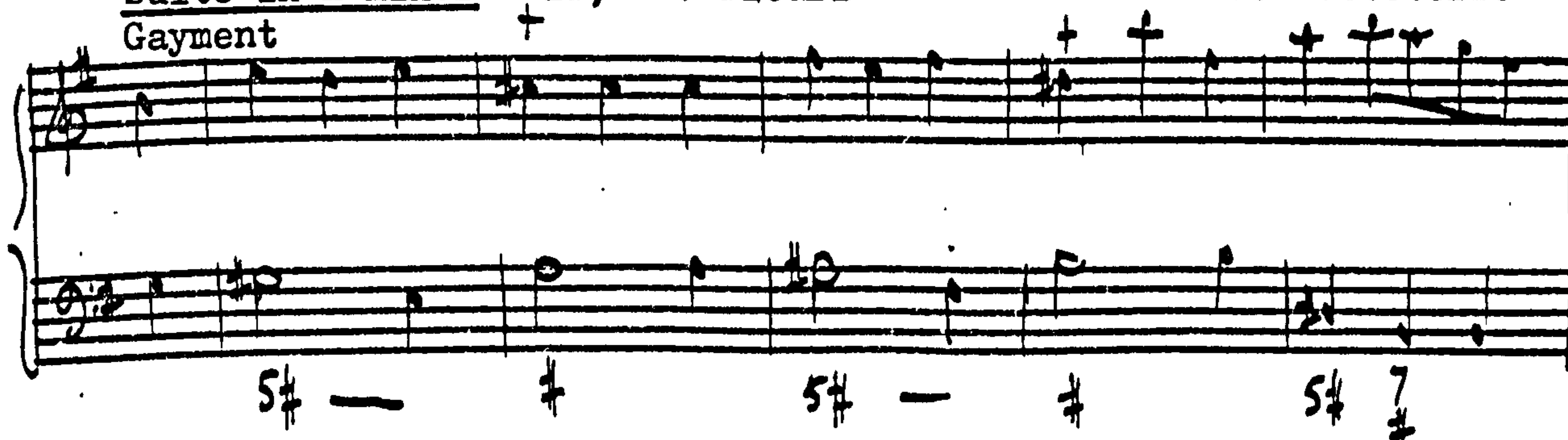
(Bar 22)



Suite in E minor Air, 'Le Fleuri'

J. Hotteterre

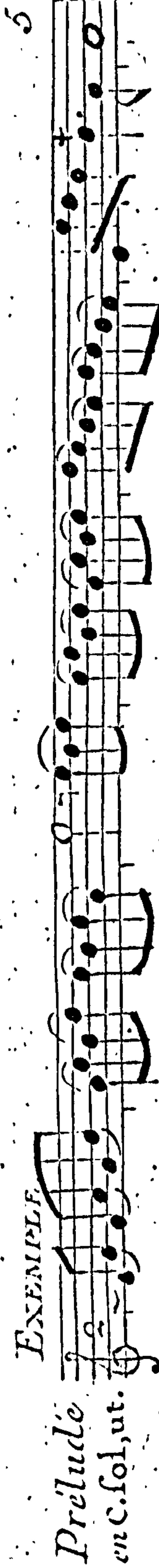
Gayment



The two Preludes which illustrate the concluding section of Hotteterre's L'Art de Pré luder show an extensive range of modulation which anticipated J. S. Bach's 48 Preludes and Fugues in comprehensiveness; but Hotteterre was only one of many 17th century composers in France, England, and elsewhere to have experimented in this way with modulation and the associated problems of temperament. The performance of pieces in remote keys such as those to which the Preludes modulate presented difficulties to flautists of Hotteterre's day, but they were always conscious of the need to correct and compensate for faults of intonation to a degree which is strange to the flautist of today playing on his multi-keyed, equally tempered instrument. On the one-keyed flute and early reed instruments correction of intonation in these remote keys was possible through embouchure control (see my fingering-chart for the one-keyed flute on p.151) to within a semitone sharp or flat of the 'natural' note.

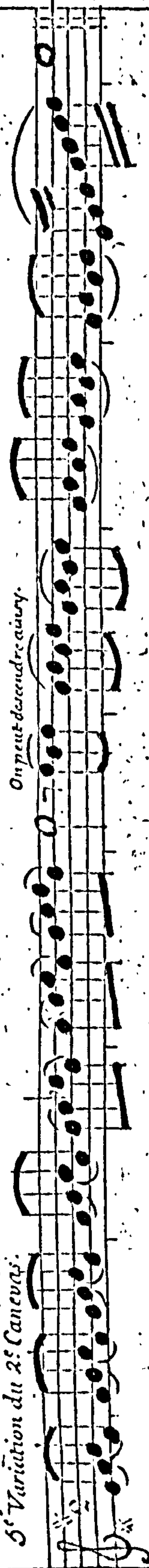
Despite the apparent freedom in modulation which was exhibited in the final two Preludes of L'Art de Pré luder, the stabilisation of temperament was not sufficiently far advanced while Hotteterre was composing for complete freedom in choice of key to exist. The terms 'point usitez' [not used] and 'peu usitez' [little used] appeared in conjunction with some arpeggios in the complete table of arpeggios in Hotteterre's L'Art de Pré luder, so one may assume that performance in some keys was purely of academic interest.

EXEMPLE

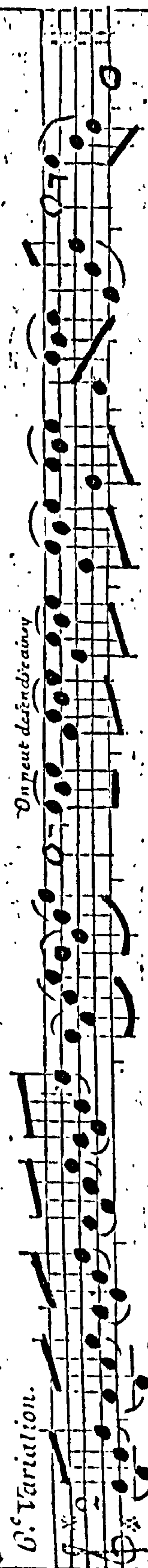


Il faut donc bien s'accoutûmer l'oreille à la vraie modulation afin d'en se pointer en prélude. voyons quelques autres variations sur notre second canevas.

5^e Variation du 2^e Canevas.



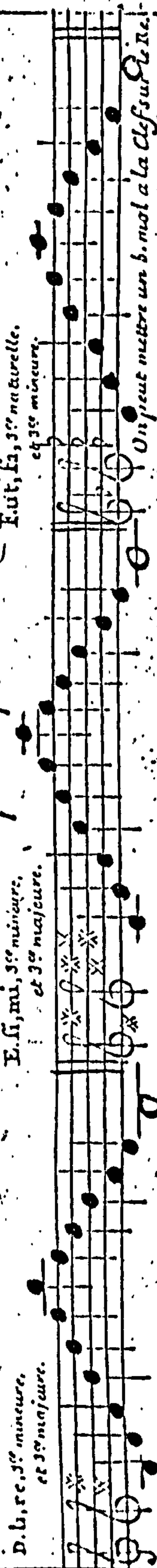
6^e Variation.



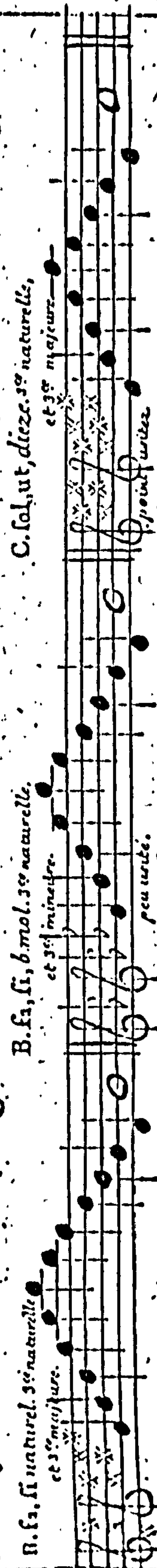
Ces exemples peuvent suffire pour donner une idée des principes du Prélude, non seulement dans ces Modes, mais dans tous. Je donneray icy des Canevas sur quelques Modes.

Canevas sur quelques Modes.

D. b, e, 3^e mineure, et 3^e majeure.



B. f, si naturel, 3^e naturelle, et 3^e majeure.



Voyez à la page 27. les Modes qui manquent icy. Je vais donner dans le Chapitre suivant des modèles de Préludes par le moyen desquels on pourra commencer à se former le génie.

An extract from Hotteterre's L'Art de Préluder. The author refers to the key of B flat minor as being peu usité and to the keys of C sharp major and minor as being point usitéz.

The common 'cycle of 5ths' harmonic progression(s) evolved in Germany and Italy were adopted in France c. 1700, and the harmonic schemes of some of Hotteterre's wind pieces used these progressions as episodic material. The harmonic implications of one of his Preludes bears a striking resemblance to a passage in one of Handel's flute or recorder sonatas:

L'Art de Preluder (Paris, 1719)

J. Hotteterre

Preludes pour la flute-a-bec, F major, 2nd Prelude.

Implied harmonic basis:

Sonata in F major for recorder and bass, Op. 1, No. 11 Handel

Movt. 2 Allegro

Transposition

The wide variety in sizes of instrument in the 17th and 18th centuries led players to transpose music freely to make it suitable for the range of their instrument(s). In Chapter 10 of his L'Art de Préluder Hotteterre le Romain offered some practical suggestions about (i) transposition, and (ii) reading from different clef positions. He remarked that:

... one cannot acquire facility in it [transposition] without much practice; that is why one must persevere with this study.

Recorder players normally transposed transverse flute music a minor third higher than the original, the keys of F and B flat being much better suited to the alto recorder in F than the keys of D and G which were well suited to the transverse flute in D. Hotteterre dealt with this practice at considerable length, and the space he devoted to it perhaps gives a measure of the popularity of this practice amongst contemporary woodwind players.

1 Hotteterre, J. L'Art de Préluder (Paris, 1719) p. 61

PREMIERE SUITE DE PIECES

*a deux Dessus, sans Basse Continue.
Pour les*

FLUTES-TRAVERSIERES, FLUTES A BEC, VIOLES &c.

PAR M.^R HOTTETERRE, le Romain.

Ordinaire de la Musique de la Chambre du Roy.

ŒUVRE QUATRIESME.

SE VEND À PARIS.

Prix, 1^{re} 5^l. broché.

L'AUTEUR, rue de seine, au coin de la rue des marais, entre un
palissier et un marchand de vin.

Le S.^r BOIVIN M.^e rue S.^t Honoré a la règle d'or.
AVEC PRIVILEGE DU ROY.

M.DCC XII.

CHEZ

AVERTISSEMENT. Lorsqu'on voudra jouer ces pièces sur la Flûte à bec, on transposera une tierce plus haut celles qui sont trop bas. On pourra jouer les seconds parties sur la Viole, en les prenant sur les brèves hautes.

The title-page of Hotteterre's Première Suite de Pièces contains an informative Avertissement.

" When one wishes to play these pieces on the recorder, those which lie too low should be transposed a third higher . The second voice may be played on the viol by playing them on the upper strings".

The alto recorder in F was treated as the standard instrument of the family, and music for voice flute (alto recorder in D_4), fourth flute¹ (soprano recorder in B_4 flat), fifth flute (soprano recorder in C_5) and sixth flute (soprano recorder in D_5) was transposed so that it could be played if the performer imagined himself to be fingering the standard alto recorder in F. Flauti piccoli (see Chapter 9, p.210) were fifth flutes, i.e. soprano recorders in C_5 , and played in octaves with violins, flutes, and oboes.

Francois Dieupart, a French composer who settled in England, published his six harpsichord suites in a version for violin or recorder and continuo in Amsterdam ^{in 1701} ~~in 1705~~.² The violin part was written at pitch, but above each suite Dieupart gave instructions for transposing this part for the recorder. Suites 1-4 (he suggested) may be transposed a minor 3rd higher and played on the voice flute using alto fingering. Suites 5 and 6 may be transposed a tone higher and played on the fourth flute. There is no problem for suites 1-4, but the transposition given for suites 5 and 6 would work only if the performer imagined himself to be fingering not the alto but the soprano recorder. It is therefore possible on this evidence to deduce that soprano fingering was used in France or England at that time.

Playing with continuo accompaniment

The problem of getting woodwinds in tune with continuo instruments was naturally a real one c. 1700 because the ensemble contained

1 Lasocki, D. 'The C Recorder in the 18th century' The American Recorder Vol. XI, No. 1 (New York, 1970). Lasocki discusses the use of a fourth flute as a tenor or soprano.

2 Suites all published in transposed version by Moeck

only two or three instruments. C. 1720 flutes started to be made with as many as three or four 'corps de réchange' (middle sections of the flute which could be substituted to alter the overall pitch of the instrument). The problem of tuning was less acute with the harpsichord than with an instrument producing sustained tone such as the chamber organ. It was normal to give added support to the bass of the continuo, and the choice of instrument for this purpose depended on tonal balance. The bassoon provided a suitable bass for the oboe, while gentler string tone blended more successfully with the recorder and transverse flute. The portrait of a group of musicians in the National Gallery, London, newly discussed by Bate in The Flute (London, 1969), shows flautists La Barre and Hotteterre le Romain accompanied by Marin Marais playing viol da gamba and provides support for this view of flute accompaniment.



Portrait known as 'de la Barre and Musicians' attributed to Tour-nières (c. 1710).

Contemporary French harpsichordists used the instrument richly in their realisations of continuo parts. One of very few examples of written-out continuo parts by contemporary woodwind composers is quoted by Dr. Peter Williams.¹ It is taken from Michel de la Barre's Allemande, 'La Mariane' for flute and harpsichord from his Pièces pour la Flûte traversière (Paris, 1703), and the composer's realisation is shown by extracts.*² Theorists such as St. Lambert laid emphasis on using the tenor and bass ranges of the contemporary French harpsichord, and this would be the sound quality to aim at in performing continuo parts of these early wind works. Distinctive features of French continuo playing style included:

- (i) low spacing of chords, and
- (ii) the restrained use of non-harmonic notes.

* Note. It is perhaps unwise to extrapolate from such an example: the fact that la Barre wrote out what he intended may indicate that it differed from current continuo practices. Notation de-natures what is an essentially improvisatory practice.

1 Williams, P. Figured Bass Accompaniment II (Edinburgh, 1970) Example 96. See also the author's comments on pp. 83-84.

2 Saint Lambert, M. de. Nouveau Traité de l'Accompagnement du Clavecin (Paris, 1707)

Chapter 9

Orchestral scoring for woodwinds

The arrival of Italian composers in France encouraged by Mazarin c. 1647 had a profound influence on French sacred and secular music. Cambert and Lully created the 'dramatic' orchestra to accompany opera and ballet. They gave increased importance to the string body as a whole set against the vocal mass. Within one century, through the efforts of Charpentier, Marais, Montéclair and Rameau, the French orchestra originally borrowed from the Italians had surpassed its model in power, colourfulness, and dramatic point.

Violins formed the backbone of Cambert's orchestra. Generally divided into four parts, it wove a heavy type of counterpoint, and only some passages for flute lightened the rather monotonous mood. Cambert did attempt some variety in his effects. The overture to Pomone for example begins with a canon for four voices, continues with a French-style Allegro, and concludes with an echo passage. The ritornello passage for three flutes (recorders) which so excited Cambert's contemporaries is of interest, but the tone colour was by no means original as Mersenne's Gavotte for recorders demonstrates.

Gavotte pour les Flûtes douces.



Gavote pour les Flustes douces

Note

This instrumental piece, taken from Mersenne's Harmonie Universelle (1636), was composed by Sieur Henry le Jeune. As can be seen above he wrote for recorders in various C clefs and in the F clef, but Mersenne did not clarify the problem of which instruments the short piece was intended for. It does not fit Mersenne's normal quartet of 1 treble, 2 tenor and 1 bass recorders, but it does fit the present-day combination of 1 descant, 1 treble, 1 tenor, and 1 bass recorder.

By the mid-17th century a strong tradition of the formation of oboe bands for military purposes had been established. Lully undertook the organisation of these bands in his time, and composed and arranged numerous marches for oboes of different sizes. This experience coupled to an abundant supply of excellent players no doubt accounts for the regular appearance of the instrument in his operatic scores. During the period 1675-1725 oboes absorbed much more attention than that given to flutes or bassoons, and they shared with trumpets the most important position amongst wind instruments in the orchestra.

Air pour les Hautbois*

Martin Hotteterre



* Hautbois - a generic term. The bass line would be played by bassoon.

Note

This short piece by Martin Hotteterre was typical of many such military compositions for oboes contained in the 'Collection Philidor' housed in the library of Versailles.

Obvious errors in the Ms are corrected without comment, and editorial additions appear within square brackets. The dissonances in bar 1, stave 3 on p. 195 are indeed striking if intentional.

Handwritten musical notation on four staves. The first staff begins with a treble clef, a key signature of one flat (B-flat), and a common time signature (C). It contains a series of eighth and sixteenth notes, with a '+' sign above the first measure and a bracketed '+' sign above the second measure. The second staff continues the melody with similar note values and a '+' sign above the first measure. The third staff features a treble clef, a key signature of one flat, and a common time signature, with a bracketed '+' sign above the first measure. The fourth staff continues the melody with a '+' sign above the first measure. All staves end with a double bar line and a repeat sign.

Handwritten musical notation on four staves. The first staff begins with a treble clef, a key signature of one flat, and a common time signature. It contains a series of eighth and sixteenth notes, with a '+' sign above the first measure. The second staff continues the melody with similar note values and a '+' sign above the first measure. The third staff features a treble clef, a key signature of one flat, and a common time signature, with a '+' sign above the first measure. The fourth staff continues the melody with a '+' sign above the first measure. All staves end with a double bar line and a repeat sign.

Handwritten musical notation on four staves. The first staff begins with a treble clef, a key signature of one flat, and a common time signature. It contains a series of eighth and sixteenth notes, with a '+' sign above the first measure. The second staff continues the melody with similar note values and a '+' sign above the first measure. The third staff features a treble clef, a key signature of one flat, and a common time signature, with a bracketed '?' sign above the first measure. The fourth staff continues the melody with a '+' sign above the first measure. All staves end with a double bar line and a repeat sign.

The variety of melodic invention, dramatic expression, vitality of rhythms and colourful instrumentation characteristic of Lully's twenty operas composed during the years 1670-1687 represents a large step forward from Cambert's Pomone, Peines et Plaisirs de l'Amour, and Pastorale. As with Cambert, the basis of Lully's orchestra was the string section, and he made a practice of doubling vocal parts with the string quartet or quintet. He also used flutes in ritornellos or playing in unison with the strings. Additional instruments included trumpets and drums, oboes, bassoons, and percussion instruments which Lully featured in the music for his ballets. He used instruments such as the musette, guitar, and horns to add colour to his divertissements.

Flutes and oboes were given parts in all Lully's operas, but on average they played only in approximately six scenes in each. Vocal solos were accompanied by a bass part, and when instrumental parts were written they were more often than not only for two violins, or sometimes two flutes or oboes. Ritornellos were likewise scored for a three-part orchestra. Flutes and oboes were used in dances, marches, and sometimes in ritornellos, but there was generally no written out part for them in the score in fuller ensembles. Bassoons appeared only irregularly in the scores, *but this does not mean that they were not normally included in the orchestra.*

Lully's wind parts were stylistically stereotyped, and were laid out in the score similarly to his string parts. When they did appear in the score the two flute or oboe parts (or both combined) either

- (a) duplicated the first and second violin parts,
- (b) replaced them, or
- (c) they (more rarely) alternated with the string group in short phrases. Of these three possibilities the first was the most common.

The only direction required in the score was the heading 'Flûtes et

violons' or 'Hautbois; flûtes et violons'. They continued playing in unison until the end of the movement, or until some further directive such as 'Violons' or 'Violons seuls' was given in the score. In movements headed 'Pour les violons et les flûtes' again the intention was that the first flute should play in unison with the first violins and the second flute with the second violins. These directions were interpreted in two ways:

- (a) the wind instruments could be added to the strings, or
- (b) they could replace them. The method adopted was not always made clear. On the other hand, directions were given which indicated quite definitely when oboes and flutes were to play alone or in combination. They were given two independent parts in the score and were accompanied by the continuo, but writing for winds was not idiomatic and showed little distinction from string parts. If it were not for the written directions on instrumentation it would be impossible to tell one from the other. As mentioned in (c) above Lully did exploit the juxtaposition of wind and string tone, but he used the device timidly, and due to his practice of not writing for woodwinds in more than two parts any alternation between woodwind and strings lacked fullness on the part of the wind forces.

Acis et Galathée

Lully

Violins

tous Flutes tous Flutes

Violas

tous Flutes tous Flutes

Basse-continue

b# # 6 b 4 # 6 4 # 6 6 6

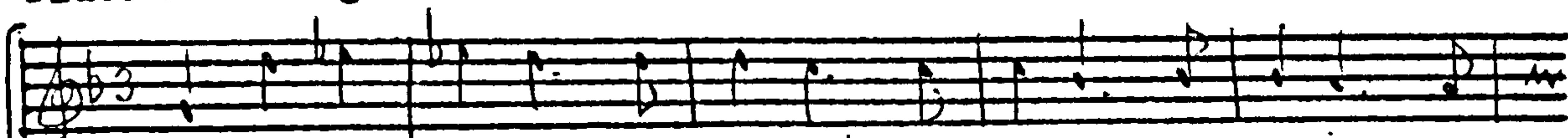
The musical score is arranged in four systems. The first system contains the Violins and Flutes parts. The second system contains the Violas and Flutes parts. The third system contains the Basse-continue part. The Basse-continue part includes figured bass notation at the bottom of the staff, which is a common notation for the lute or harpsichord in Baroque music. The notation includes various accidentals and dynamics, such as b#, #, 6, b, 4, #, 6, 4, #, 6, 6, 6.

Occasionally in Lully's scores flutes d'Allemagne were specified and it may be assumed from this that recorders were normally used. The somewhat limited compass of Lully's violin parts of rather less than two octaves was imposed on flutes and oboes whether or not they played alone or in unison with the strings. While this range was well suited to the oboe, it did not cater for the more brilliant upper register of the flute, and there was no discernible difference between parts for oboe and those for flute. Lully had not yet grasped the possibilities of independent woodwind and string activity in his scoring.

Thesée

Lully

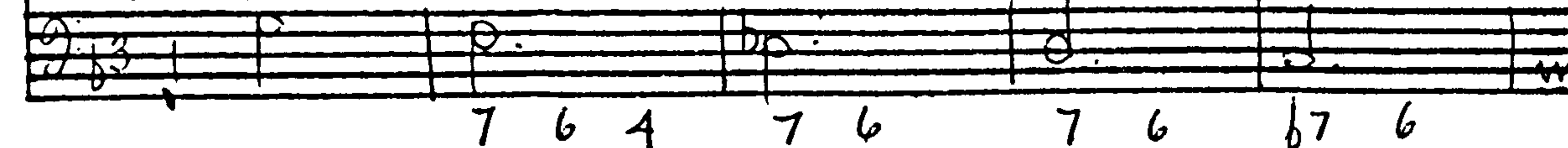
Flûte d'Allemagne



Flûte d'Allemagne



Basse-continue



Thesée
Hautbois

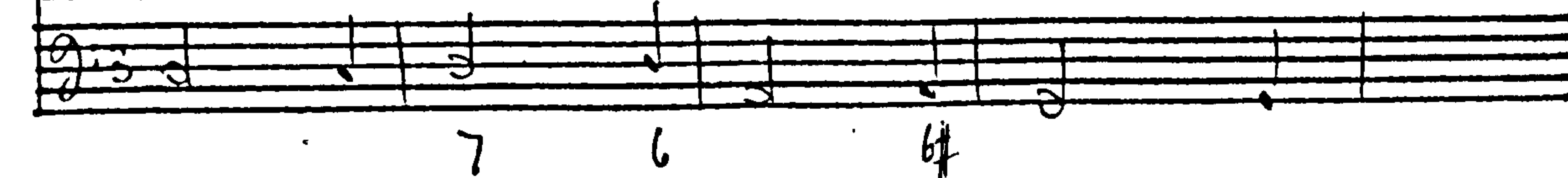
Lully



Hautbois



Basse-continue



Lully rarely employed all the forces of his orchestra as a tutti. He preferred the use of an elementary type of dialogue amongst instruments, or between instruments and voices. For example, in the prologue to Fêtes de l'Amour oboes and musettes answer one another in a musical dialogue. In another instance the mass of strings, trumpets and drums is set off against a lively ritornello played by oboes (Thésée). Lully adopted a formula for oboes and flutes whereby some variety was given to his orchestration. On more than one occasion, after a brilliant tutti, two oboes or two flutes playing in thirds played a repeat of the tutti material with a most charming effect. He sometimes wrote a complete piece for flutes or oboes (Thésée, Act 4, Scene viii). Better than any other composer of his time Lully understood the dramatic role of the flutes in the orchestra. Sometimes they were substituted for the oboes to soften the tone of the trumpets or violins. The disposition of the tutti in Thésée, Act 5, Prelude to Scene viii illustrates this feature, and the parts are distributed as follows:

2 trumpet parts

2 flute parts

5 string parts

Figured bass

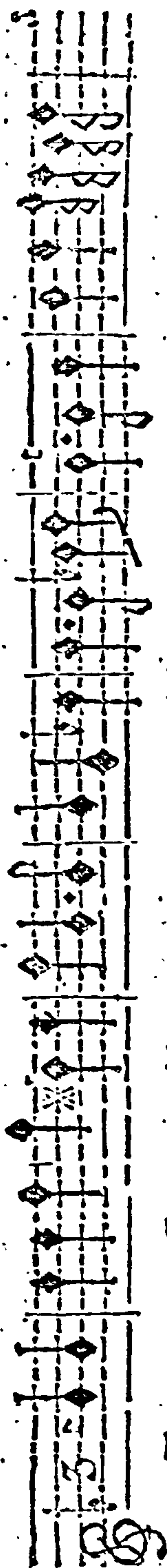
The role of the flute on some occasions was even more special, and the choice of instrument had a definite function in terms of dramatic expression. How affective are its sighs when in Act 3 of Isis Pan deploras his misfortunes! Two flutes playing in thirds accompany the complaints of the God of the Forrests. The flutes fulfill a similar function in Act 1, Scene ii of Psyché. In the 'Prélude pour l'Amour' from the Triomphe de l'Amour Lully struck

a note of antiquity. These 'flutes' would normally have been recorders, but Lully suggested that performance on transverse flute would be acceptable - it is impossible to say where his preference lay.

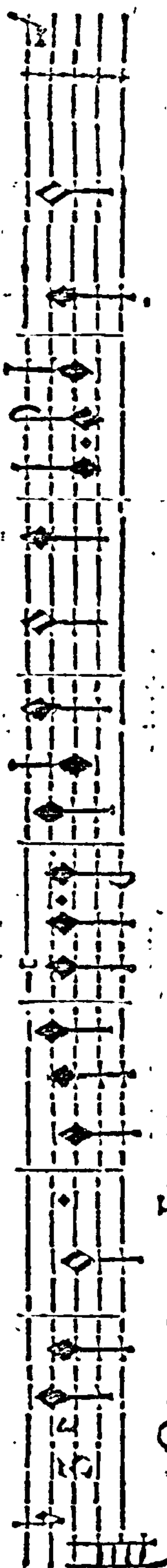
LE TRIOMPHE

PRELUDE POUR L'AMOUR.

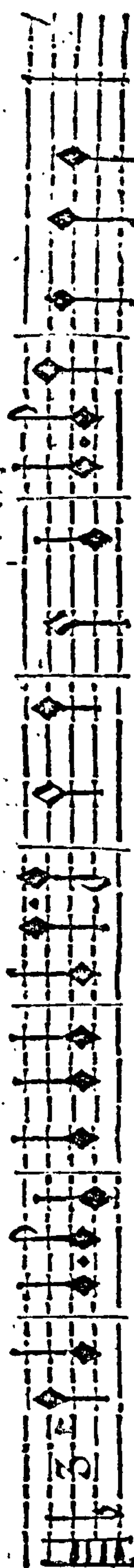
200



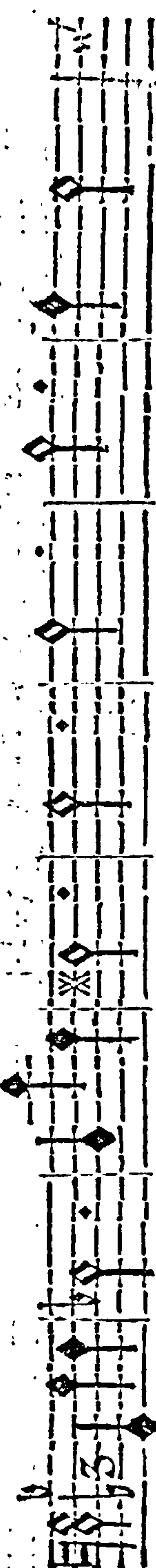
TAILLES OU FLUTES D'ALLEMAGNE.



QUINTE DE FLUTES.



PETITE BASSE DE FLUTES.



GRANDE BASSE DE FLUTES ET BASSE-CONTINUE.

"Prelude pour l'Amour" *
 Tailles ou Flûtes d'Allemagne

Lulli, Le Triomphe de l'Amour
 (Paris, 1681).

Quinte de Flûtes

Petite Basse de Flûtes

Grande Basse de Flûtes

et Basse-Continue

* Transcribed from the original score (see photocopy of original on p. 201)



Christ Church, Oxford.
Mus. 604, p. 200.

Charpentier's Medée (1693) was one of the most remarkable scores to appear between Lully and Rameau. The role of instruments is more clearly defined and expressive than in Lully's works. The chorus, 'Que d'epais bataillons', is accompanied by trumpets, drums, oboes, violins, and bassoon, and the latter instrument is charged with a very important part. An Italian aria is accompanied by a trio of flutes, and the ritornello of the Fantômes aimables is scored for flute, oboe, bassoon, and continuo.

Marin Marais produced Alcyone (1706) which represented a landmark in the treatment of instruments. Instrumental parts were to a greater extent than before independent of the vocal lines, which in turn moved with a greater freedom. The orchestra for the tempest in Alcyone consisted of bassoons, violins, violas, 'cellos, double basses, and bass drum.

French operatic tradition was carried in a lateral direction with the works of Campra, Destouches, Mouret, Collin, Elamont, and Lacoste. One composer only contributed anything of significance in orchestral terms. This was Montéclair, whose Jepthé (1732) served as an intermediate point between Rameau and the composers who preceded him. In fact, it was after a performance of Jepthé that Rameau was inspired to compose for the stage.

The overture to Jepthé used the traditional four staves, the first having a G clef on the first line. Manuscript parts show that the G clef part was played by all violins, flutes and oboes in unison. Without lists of players (which existed after 1752) one has to consult orchestral parts rather than full-scores to find out the numbers of players to a part since their names were often inscribed at the top. The complete parts of Jepthé are lost, but an approximate guide to numbers may be got from those of Achille et Déidamie (1735)

by Campra. He gave the following numbers:

8 first violins

8 second violins

3 haut-contre

3 tailles

4 continuo instruments

8 'cellos and double basses

5 flautists

5 bassoonists

1 trumpet player

1 horn player

1 percussion player

(Parts for 1st and 2nd oboe, piccolo, and
musette are missing.)

These figures suggest that six violas had to balance more than twenty players of violins, flutes and oboes, and more than fifteen string basses and bassoons. This would produce a very distinctive tonal blend, totally different from present-day orchestral balance.

Scene ii of Jepthé included dances, a Rigaudon, and a Menuet, which features the alternation of a reed trio (consisting of two oboes and bassoon) with the string band. Then occurred a 'Douce symphonie' for three voices which was scored as follows:

1st violins and 1st flutes in unison

2nd violins and 2nd flutes in unison

Bass part played by 'cellos and bassoons in unison.

After the vocal trio for Apollon, Polymie and Terpsichore the 'Douce

symphonie returns, scored this time for four voices:

flutes

1st violin

2nd violins

violas and bassoons (without figured bass)

In Scene iv Vérité sings accompanied only by two independent flute parts and violins. A short duet for two sopranos is then accompanied by two violin parts doubling the soprano lines, and the flutes maintain their independent parts. The bass is supplied by violas playing almost always in their highest register, and this gives a feeling of lightness and clarity to the ensemble.

Significant changes in orchestration occurred between the 1732 and 1733 editions of Jepthé. In the edition of 1732 one passage was scored in six parts, viz.

Soprano recorder

Haute-contre de la flûte-à-bec

Taille et quinte de la flûte-à-bec

Iphise (soprano)

Bass recorders

However the same passage from Act 4, Scene i in the 1733 edition was scored for:

Recorder

Transverse flute

Iphise

Violins and violas in unison

In the 'Shepherds' March' in Scene iv oboes, musettes and

bassoons were supposed to process round the theatre. The first Pastoral was scored for two musettes and bassoon; in the second oboes reinforced the musettes. The chorus was accompanied by piccolos, oboes and 1st violins in unison, 2nd violins and violas in unison, and the figured viola part formed the bass of the continuo. An imitation of birdsong was captured using two piccolos, oboes, 1st and 2nd violins, and violas. The chorus of priests (tenors, baritone, and basses) was curiously accompanied by two independent flute parts and figured bass. Flutes also played an important role in the Finale to the Act. They were present with 1st violins and continuo in Iphise's recitative 'Je meurs'.

Technical demands made on violinists and flautists in the operas of Lully, Charpentier, and Montéclair were very considerable, and some players refused to perform certain passages. What was deemed impossible by one generation, however, was played with equanimity by succeeding generations of performers.

Rameau overshadowed his predecessors and prepared the way for Gluck. In Montclair's Jephté stringed and wind instruments had been one above another, there was only restricted rhythmic activity, and in general instruments doubled vocal parts. In Rameau's Hippolyte et Aricie more individual roles were adopted for the instruments, and although the orchestra accompanied the chorus there was little of the continual doubling which one finds in the earlier work.

Rameau's orchestra for the Temple de la Gloire consisted of:

1st violins

1st oboes

2nd violins

2nd oboes

1st flute and piccolo

1st trumpet

2nd trumpet

Hautes-contres

Tailles

Tymballes

1st bassoons

2nd bassoons

Basses

As can be seen from the above list Rameau reduced the French string orchestra from five to four basic parts, and thus brought it into line with contemporary usage elsewhere. His string parts were written out in the following order:

1st violins

2nd violins

violas

'cellos and basses

No early French operatic score was complete without its thunderstorm or an imitation of birdsong - such were the fashions of the age - and Rameau indulged his public with appropriate twitterings from the woodwind.

'Ramage des oiseaux' from Le Temple de la Gloire

J.P. Rameau

Flutes I & II
Violins I & II
Violas

The first system of the musical score. It consists of three staves. The top staff is for Flutes I & II, the middle for Violins I & II, and the bottom for Violas. The music is in G major (one sharp) and 3/4 time. The Flute part begins with a melodic line. The Violin and Viola parts feature a complex, rhythmic texture with many beamed sixteenth and thirty-second notes, creating a bird-like effect. There are some handwritten markings above the staves, including a 'p' and some notes.

The second system of the musical score, continuing the three staves. The Flute part continues its melodic line. The Violin and Viola parts maintain their complex, rhythmic texture. There are some handwritten markings above the staves, including a 'p' and some notes.

The third system of the musical score. It continues the three staves. The Flute part has a melodic line with some rests. The Violin and Viola parts continue their complex, rhythmic texture. There are some handwritten markings above the staves, including a 'p' and some notes.

The fourth system of the musical score. It continues the three staves. The Flute part has a melodic line with some rests. The Violin and Viola parts continue their complex, rhythmic texture. There are some handwritten markings above the staves, including a 'p' and some notes.

Violas tacet.

The tempest in Rameau's Zais was scored for two flutes playing in thirds. In Boree's aria in Les Indes galantes the flutes' suspensions acted as a foil to the rapid scales of the violins, representing as they did the release of the *Lutans*. An elegant passage for piccolo simulates the wind of the Zephyrs.

Rameau regularly wrote wind parts in his operas for flutes, oboes, and bassoons, each in two parts. His writing for woodwinds had a variety of texture which was sadly lacking in his predecessors' works. Rameau's flutes, oboes and bassoons fulfilled generally one of three main purposes.

(i) They were normally engaged in doubling the string parts in conventional early 18th century style.

(ii) They sustained harmony, providing a much more solid harmonic background than the conventional two oboes and bassoons. The additional bassoon part made it possible to have six-part harmony in the woodwind.

J. P. Rameau

Handwritten musical score for J. P. Rameau, page 211. The score consists of 11 staves. The first four staves are in treble and bass clef, with a key signature of two flats (B-flat and E-flat). The fifth staff is in treble clef with a key signature of one flat (B-flat). The sixth and seventh staves are in treble and bass clef with a key signature of one flat (B-flat). The eighth staff is in treble clef with a key signature of one flat (B-flat). The ninth and tenth staves are in treble and bass clef with a key signature of one flat (B-flat). The eleventh staff is in treble clef with a key signature of one flat (B-flat). The score includes various musical notations such as notes, rests, accidentals, and dynamic markings.

(iii) They played independent solos. Oboes were sometimes given a degree of independence, but often doubled 1st and 2nd violins in the conventional way. Bassoons either filled in middle harmonies, played solos, or doubled the bass line. Rameau's flute parts were written for transverse flutes, and lay well up in the second octave producing a more characteristic sound than previously when they had been confined solely to their lower register.

Hippolyte et Aricie, Act 2, Scene iii

J.P. Rameau

Moderato

Flute I

p

Flute II

p

Violins I & II

B. C.

[~]

(cellos only + keyboard) (+ violas an 8ve higher)

6 8 6 5 6 8 7 6 8 6 8 7 6 8

6 # 6 7 #

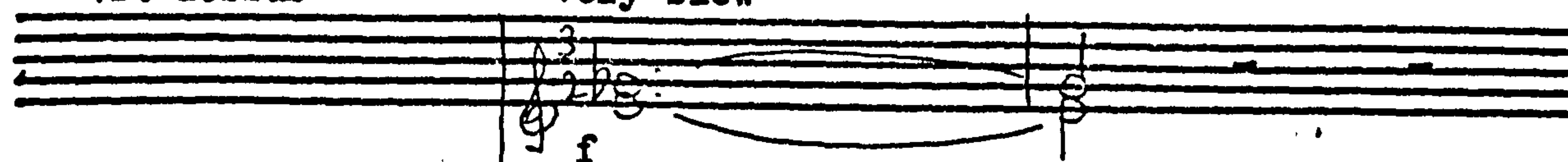
Some stimulus was given to orchestral music (apart from its association with opera) by the establishment in Paris of the Concerts Spirituels in 1725, but achievements in scoring for the concert orchestra lagged behind that of the operatic orchestra for most of the 18th century. Instrumentation for the symphony remained less developed than that for the accompaniment of the lyric scene, and symphonic scoring consisted basically of writing for string quartet with two oboes added 'ad lib'. Such a work as J. F. Rebel's Les Éléments (1737), however, showed interesting trends in the direction of programme music, with flutes 'imitating running water' and a representation of 'Chaos' portrayed in a confusion of harmony - the opening chord contains all the notes of the diatonic octave.

Les Elements

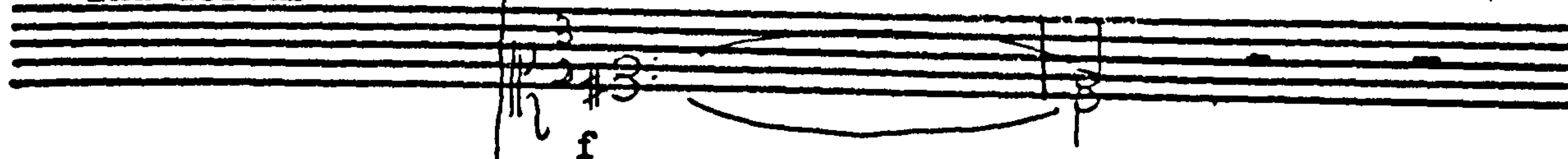
J. F. Rebel

'Chaos'
1st dessus

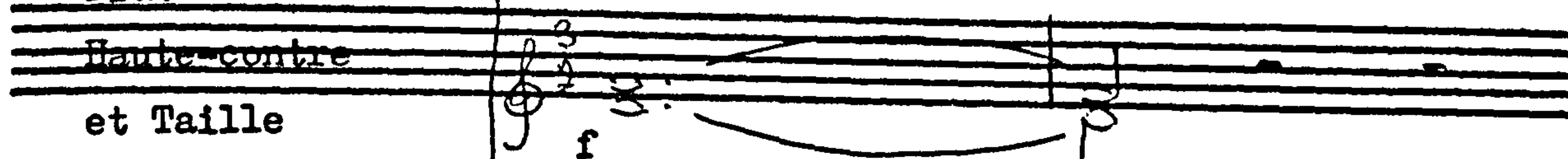
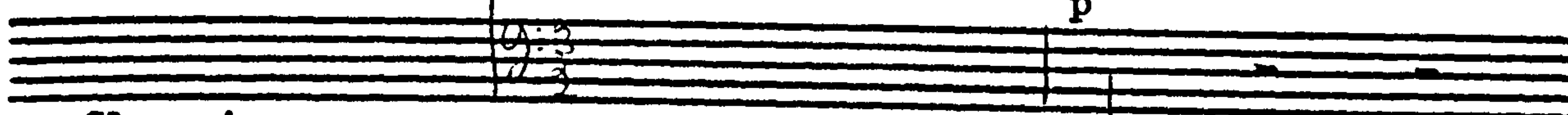
Very slow



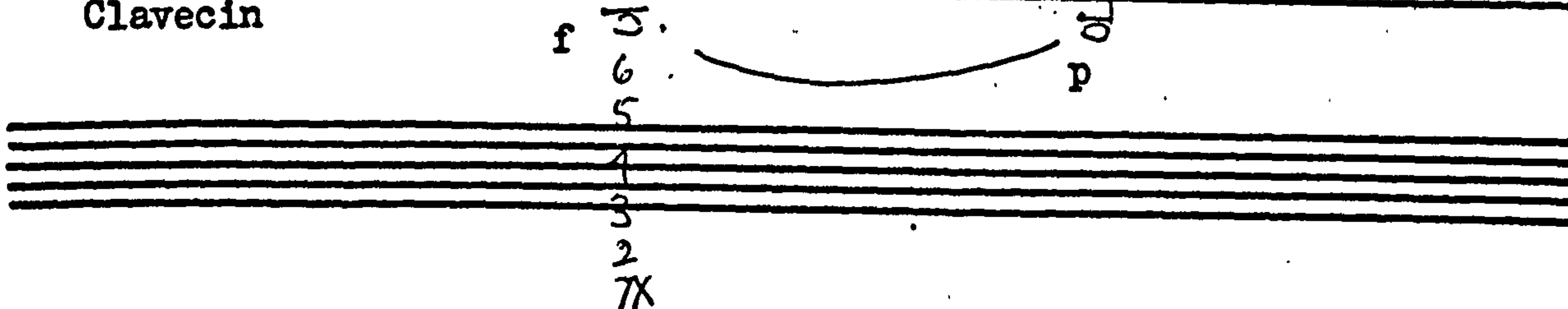
2nd dessus



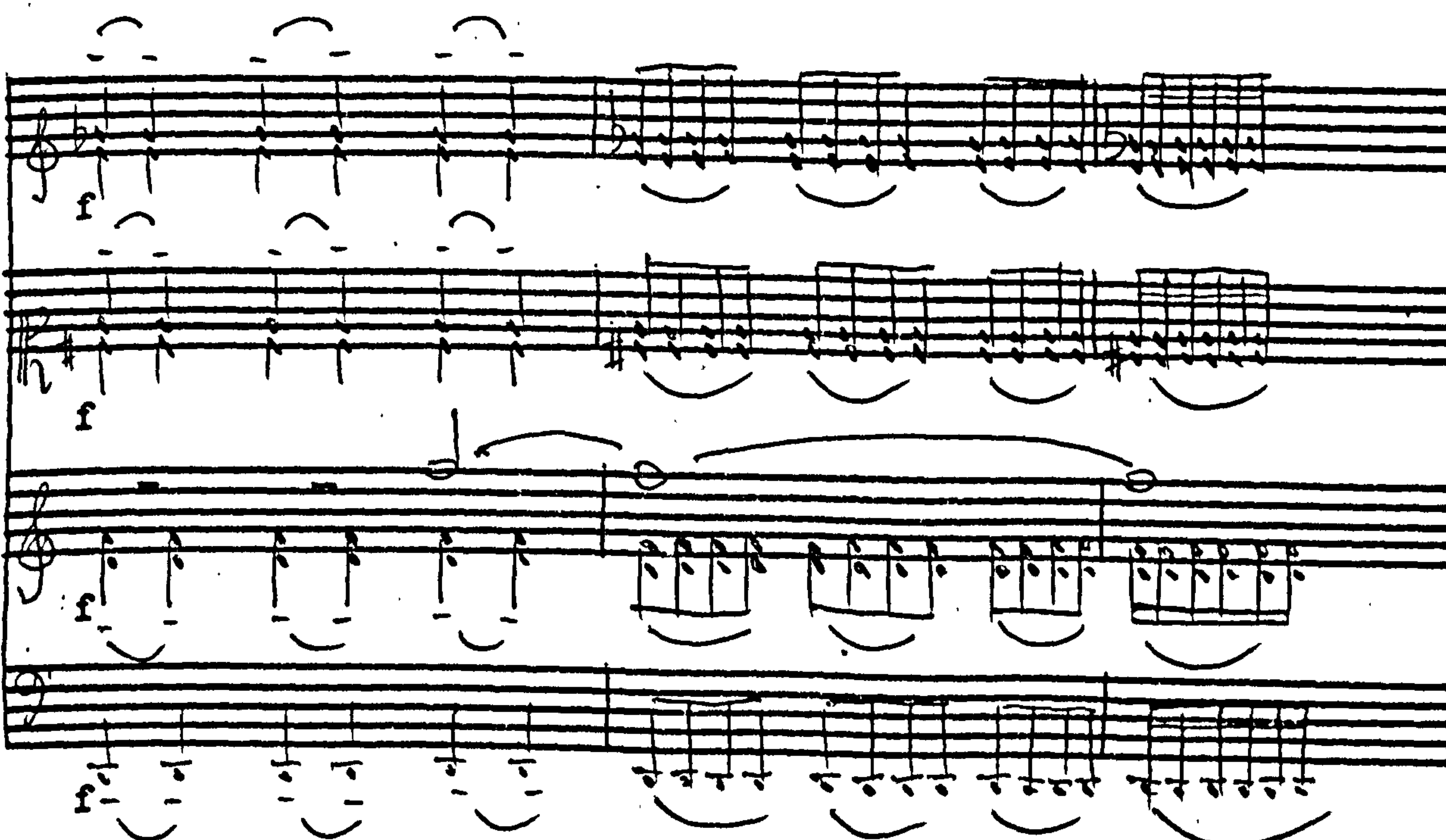
Flutes

Hautbois-contre
et Taille

Clavecin



Moderato



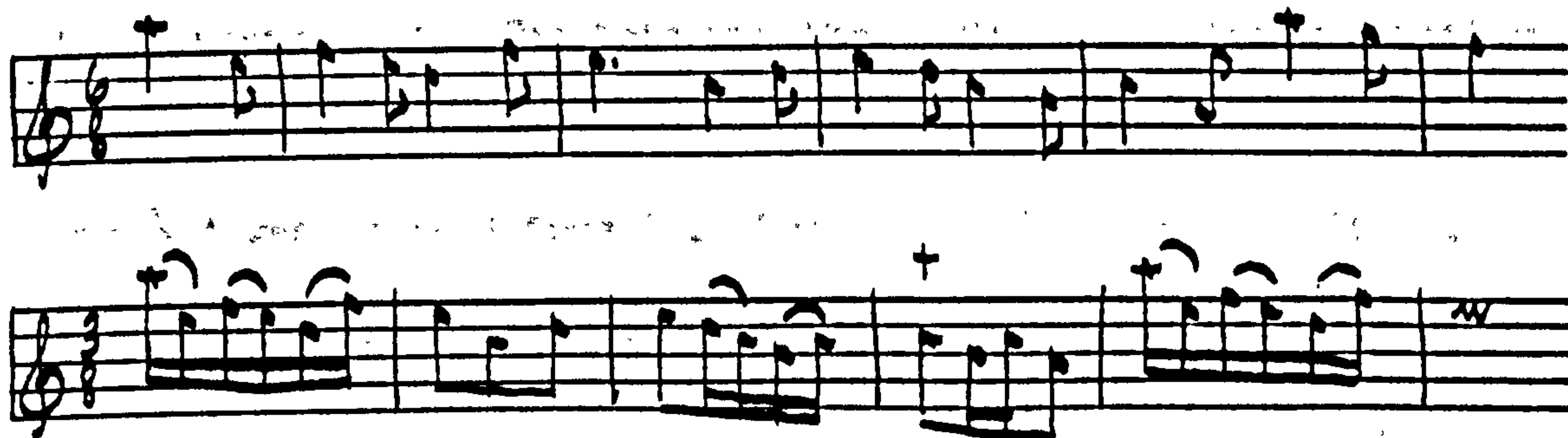
Chapter 10

The beginning of a French concerto tradition for woodwinds.

Although the concerto arrived fresh on the French woodwind scene c. 1725 from Italy, interaction between French and Italian music had existed for some time. Francois Couperin found an entirely personal solution to the problem of uniting the two styles. The Italian sonata had been completely assimilated, and Francoeur, Duval and Senaille were far from being mere imitations of Corelli. The woodwind sonatas of Blavet, Boismortier and Naudot were typically French. It is reasonable to expect that a new form, once accepted as such, should be dealt with in terms of a national aesthetic but the concerto brought with it from Italy some stylistic elements which were inseparable from it. Such elements as the notorious unison themes based on scale passages or on the tonic arpeggio, far from being identified solely with Vivaldi, were simply the outward signs of a new style whose development was closely allied to the concerto. (See Volume II, p. 125).

Was it possible to write a concerto solely in the French style? J. S. Bach's B minor Overture was basically a concerto in the French style as viewed by an intelligent and perceptive German composer. The native answer came however from a juxtaposition of the two styles; a concerto by Blavet separated two Vivaldi-type Allegros with two Parisian Gavottes. It was in their slow movements in which French composers enjoyed a greater freedom of expression that they returned to the style which was dearest to them. Perhaps the interruptions in tempi which occurred in Boismortier's Op. 15 were due to the composer's desire to subject the listener to familiar music before opening up new horizons. The concerto finale was closely identified with

lively Menuets or Giges which formed the obligatory conclusion to all suites, to such an extent that differences between the French and Italian concerto were largely centred on the first movement. A number of movements by Boismortier, Corrette, and (more especially) Naudot could pass for Italian - except perhaps for a certain restraint in their less flamboyant treatment of ornamentation. In Corrette's Comic Concertos the precomposed themes (often popular songs) demonstrated Italian characteristics. They equally employed a compositional technique typical of sonata composers but, until that time, absent from the concerto, viz. cyclic composition, which consisted of composing several movements on the same rhythmically modified theme. Corrette was highly skilled in this technique. The Gigue of Pantins (No. 17) became transformed into a delightful Menuet:



However, in these light-hearted pieces, the spirit of Vivaldi was never absent for very long. Thus in Concerto No. 18, due to the chords used, the theme of La Tourière (transposed also into a menuet in the finale) was introduced in the first movement by a distinctly Italian melody.

Types of composition

It is curious to note that the first French wind concertos were for five flutes, an instrumental combination for which there was no

Italian precedent. Boismortier's main contribution lay in his ability to seek out unusual tonal combinations, experimenting in a manner which was strange to his contemporaries. He wrote in 1732 some concertos for two flutes without bass which should not be confused with the sonatas for two flutes which made up a considerable portion of his output. A large measure of unison writing was sufficient to distinguish the concertos from the sonatas. Although the upper parts were more florid, they were not 'soloists' concertos. In the Concerto à 5 for flute, violin, oboe, bassoon and bass, Op. 37 (1732) each instrument in turn had its solo, and when they played together they formed the tutti. This conception had its equivalent (perhaps its origin?) in the works of Vivaldi (Pincherle 82, 207, 323, 360, and 403). Besides the concertos which did not fit into any category, there were two fairly clearly defined types:

(1) Concerto à 4. The trio was the basis of all instrumental music of the early 18th century, and it is easy to demonstrate how the concerto à 4 was derived from it. The title of Corrette's Op. 3, 'Six concertos pour les flûtes, violons, hautbois' was more accurately described as 'Trio et concerto pour trois flûtes, hautbois, ou violons avec la basse'. The odd-numbered movements only made use of two flutes and bass without any indication of solo parts. They were composed in two sections separated by repeat bars; they were simply trio sonatas. In the even-numbered movements on the contrary the style was certainly that of the concerto, with indication such as 'tutti' and 'solo'. The first flute played by far the most important role, but some solos were entrusted to the second flute. The third was purely a ripieno instrument doubling the first flute part in the tuttis. On occasion in the slow movements it enriched the writing by adding a fourth independent voice. Exactly the same comments are applicable

to Boismortier's Op. 21. It was in his Op. 27 (1729) that he wrote his first true French solo concerto - for bassoon. In this work the bassoon played entirely independently, accompanied only by a string trio.

In the choice of treble instruments the decisions were again made by Boismortier, as the title of his Op. 20 indicated: 'Six concertos for transverse flutes, violins, oboes, with bass' (1730). In the absence of this score, it is in Corrette's Op. 4 that we first find the next solo concerto for flute. The first four examples of Op. 4 were still in three parts, and the fifth was a sonata. But the sixth clearly highlighted a solo flute with three accompanying parts (two violins and bass). In the finale the flute entered after 38 bars rest, which threw into relief the contrast of the string tutti and the solo sections discreetly accompanied by strings. Blavet's concertos systematised and developed this trend, omitting the flute from each tutti, and enlarged the solos considerably, having at the end of each section a clear-cut cadence. His concerto-scoring technique was similar to that of Vivaldi, except for the absence of violas. It was in this form that Naudot adopted the concerto in his Six Concertos à 4 (Op. 17). He expanded the slow movement into a form to which he gave (on at least one occasion - No. 3) a breadth and maturity worthy of Handel. (Blavet adapted for the flute and published some airs by Handel; it was very likely that his colleague, Naudot, knew of these works.)

This development which led from the trio to the concerto à 4 was entirely logical; the titles of Corrette's Comic Concertos demonstrate this. In the first ones, for example, one comes across ^{rubrics} ~~comments~~ such as: 'Concerto for 3 flutes, or violins, with bass'. From the fifth concerto onwards there appeared the following changes:

'Concerto ... à 4 for 1 flute and two violins, with bass'. From the tenth onwards was confirmed the combination/opposition of a soloist and orchestral parts: 'Concerto ... for flute ... with parts for two violins and bass'. It is notable, however, that this type of nomenclature was familiar in the Neapolitan school, and was regularly employed by Alessandro Scarlatti, Francesco Barbella, and Domenico Sarri, and one should not exclude the possibility of their influences in France.

(ii) Concerto à 5 and à 7. Even though they were much less numerous concertos à 5 were no less typical, offered rich possibilities, and corresponded to the combination of a soloist with four orchestral parts. The concertos à 7 belonged to this type, the third violin and the bassoon only being ripieno instruments doubling respectively the first violin and the bass. It was not a question in their case of a similar development to that of the concerto à 4 being based on the trio. As much as can be certain with vague chronology it seems that all such works were composed at approximately the same time. The Op. 11 of Naudot (c. 1735) dated approximately from the same period as Boismortier's Op. 53 (1734/5). Boismortier, with his spirit of inventiveness, may be credited with the introduction of the concerto à 5. It is impossible to date Buffardin's concertos à 5, but one was played in Paris in May, 1737, at one of the Concerts Spirituels. The Concertos Op. 7 by Leclair were published in 1737, but it is certain that some were performed at a Concert Spirituel in 1733, and it was possible that his examples anticipated all others.

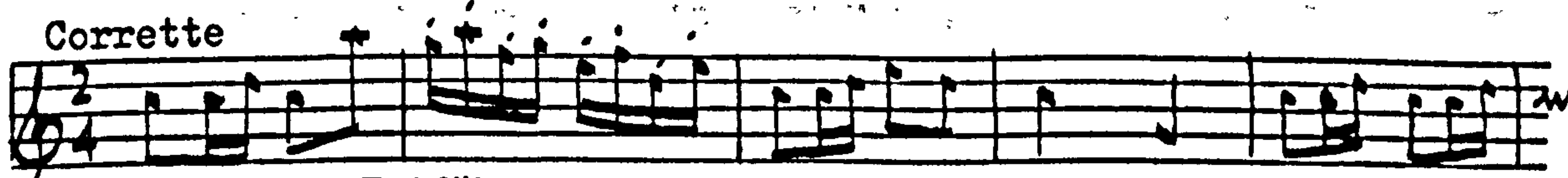
If one could trace an intermediate point of development between the concerto à 4 and that à 5 or à 7 it would be in the so-called trios of Vivaldi. But the French composers were too meticulous

(except on occasion Buffardin) to treat a viola part as a simplified doubling of the bass line.


Structure

What above all characterised the French concerto was its tripartite form: Allegro - Lento - Allegro, and to a lesser extent its more or less Italian style. In 1727, the year of Boismortier's Op. 5, four concertos were published in Paris by Michel Mascitti, a pupil of Corelli. Two were in five movements, one in four, and the last only in two, viz., a Vivace and a Passacaglia with variations. By contrast Boismortier's six Concertos à 5 for five flutes, Op. 5 were in three movements. The composer took some liberties with the alternation of the speeds of each movement. Three concertos adopted the movement disposition: Adagio - Allegro - Allegro (see transcription of Concerto in G for five flutes, Op. 15, No. 1 in Volume II pp. 118 - 142). A little later, in 1732, he wrote a concerto for two flutes (Op. 38, No. 1) in four movements: Allegro $\frac{2}{4}$ - Allegro $\frac{3}{4}$ - Adagio $\frac{4}{4}$ - Allegro $\frac{6}{8}$. Corrette also composed two comic concertos in one movement! The first, Les Tricotets (No. 9) [The Knitters] was in fact made up of three allegros strung together as a pot pourri, the two outer ones in D minor and the central section in D major. The second, Concerto Turc (No. 15) formed a unified piece; it was a Turkish march whose rhythms anticipated similar pages in Gluck and Mozart.

Corrette



Mozart: Die Entführung



But the above exceptions to tripartite form were the only ones

in the repertoire of works of the period until 1750; the slow introductions which sometimes occurred, especially in the works of Corrette, were always very short and were linked to the first movement proper.

The keys used varied considerably. Out of seventy-five concertos analysed¹ the following statistics resulted:

C major	14	A major	8	B minor	3
D major	12	G minor	6	D minor	2
G major	10	A minor	5	B flat major	2
E minor	10	C minor	3		

The figures were falsely inflated in favour of C major since concertos which had musette or viole as one of their optional instruments for performance by their nature used that key without exception. It was for this reason that the Berger Fortune concertos of Corrette and four out of six concertos of Naudot's Op. 17 were in C major. It can therefore be concluded that the most popular key for woodwinds was D major. It is notable that the key of F, which was so frequently used by Vivaldi (61 times out of a possible 469) was totally absent. There was less variety between the tonalities of slow and fast movements than one might expect. Out of 75 concertos more than half (40) retained the same tonality for all three movements, 19 had their slow movement in the relative (12 in the relative minor, 7 in the relative major), 12 in the same key but with the opposite mode (8 which began in the major had their slow movement in the tonic minor; 4 reversed this procedure). Only two had their slow movement in the dominant, and two other had their slow movements in even more distantly related keys: Corrette's Concerto comique No. 1 in B flat major had its Andante in D minor,

1 Paillard, J. F. 'Les Premiers Concertos Français pour Instruments à vent' La Revue Musicale (Paris, 1955) pp. 144-148

and the other, Corrette's Op. 4, No. 4, in G minor, had its Adagio in E flat major. Corrette was exceptional in his variety of choice of key. He only on three occasions finished a concerto which started in the minor in the major, and on one occasion composed a minor finale to a concerto in the major (Concerto comique No. 6). Boismortier, when he did change the key of his slow movements, only employed the relative. He was the only composer to use the key of F major for a slow movement (Op. 37, No. 6).

The Allegros

As a general rule the opening allegro adopted the same form as the finale, and the only difference lay in the character of the musical ideas presented and in the time signatures used. The French finale was typified by $\frac{3}{8}$ time since, out of 75 concertos, approximately a half (38) were written in it (compared with the 84 concertos of Vivaldi which made up his printed output of which only 24 (less than $\frac{1}{3}$) had a finale in $\frac{3}{8}$ time). The formal structure was identical to its Italian model: an opening tutti in several sections, solos (developing ideas from these sections or introducing new themes or presenting ^{raised} formulaed passage-work), intermediate tuttis in neighbouring keys, and a more or less complete recapitulation in conclusion.

Each composer made his own distinctive contribution to this basic plan. Boismortier strictly followed French taste; in his works the tuttis were presented like a rondo theme while the solo sections represented contrasting episodes. He favoured following the final tutti with a fairly extensive coda. He even finished an allegro in the major in the tonic minor (See Volume II, p.142).

Although Corrette voluntarily followed Boismortier's example, Naudot imitated Vivaldi much more closely. He showed a distinct preference for a construction with five *tutti*, of which the last was an exact repetition of the first, indicated in the score by the direction 'Da capo'. His second *tutti* was in the dominant, but frequently, after a few bars he re-exposed his opening *tutti* material in the tonic. His two remaining *tutti* consisted simply of modulating chordal progressions.

Blavet's concertos showed real skill in motivic development and a remarkable economy of thematic material. His allegros consisted of four *tutti*, but this was not the only evidence of his basing his works on the models of Vivaldi. The first movement was founded entirely on a 4-bar theme, which was divisible into two thematic germs:



and on a secondary sequential theme. The development of / made use of chromaticism. The first *tutti* of the finale was based on the following theme:



It was left to the soloist to expose the second theme and to develop it, again using chromatic harmony.



Note that the following *tutti* took up the second theme after the first, which confirms the former's structural function.

Buffardin constructed his first movement with four tuttis and his finale with five. He gave a palpable unity to his allegros by varying similar motives in the solo sections and by introducing into the accompaniment as well as into the flute part judicious references to the original thematic material - a practice which his pupil Quantz so admired.

It was due to the efforts of Leclair that the structure of the allegro took on its classical balance and proportions. Such a violin concerto as that in D major (Op. 7, No. 2) for example, although a youthful work and composed under the influence of Vivaldi and Corelli, already alternated numerous tutti passages and short solos. But all the concertos of his second book (and even some of the first) e.g. Concerto for flute or oboe Op. 7, No. 3, were subject to a highly symmetrical plan, inspired by a composer who had already achieved mastery in his art. Leclair also possessed a technique which had crystallised as a result of the influence of Locatelli and which allowed him to enlarge the solo passages significantly. He reduced to four the number of tuttis and correspondingly reduced the number of solos to three. An analysis of the concerto for flute or oboe mentioned above shows with how much skill Leclair used the different sections of the original tutti to construct the intermediate tuttis, and how in postponing the final motive for the conclusion of the movement he avoided (as Quantz advocated) the monotony resulting from too frequent repetitions or from a complete 'Da capo'. The central solo formed the mainstay of the movement; its proportions were vast, and the virtuosity of the soloist as well as the added interest in the orchestral accompaniment were reserved for this section. The other solos were extremely short. Very often the first solo introduced a new theme in the dominant

which the third solo recapitulated in the tonic; here was clear evidence of bithematicism. This layout was not used it is true in the Concerto Op. 7, No. 3, in which Leclair was content to develop the original ideas of the opening tutti.

Slow movements

If the plan of the allegro (with minor variations) was basically the same as that of the Italian allegro, the same was not true of the slow movement. It is true that there was not a 'definitive' Vivaldi-type adagio; all types of slow movements were to be found in his compositions.

The simplest kind of slow movement was an intermezzo of a few bars separating two allegros. These embryonic adagios in light-hearted pieces for a 'galant' public were often made up of only a few chords or a short melody; Corrette's comic concertos were typical examples.

Boismortier, who in general wrote interesting slow movements, was usually content to punctuate the movement with cadences in relevant keys corresponding to those into which the music had modulated, leaving the melody entirely free to evolve without the constraints of a formal development. Thus the adagio of the Concerto for 5 parts in E minor Op. 37, which was in the key of G major, started with a phrase of 14 bars in the tonic, subdivided itself into 8 plus 6 bars. A new phrase of 8 bars (4+4) modulated to B minor. There followed a passage of close-knit imitations which led in 8 bars back to the tonic. Six bars of homophonic harmony acted as a foil to the preceding counterpoint and led to E minor, the principal key of the concerto. A coda of two bars led to the dominant B,

allowing a direct link into the finale. Unity was reinforced by a process of reference derived from the old polyphonic motet and consisted of basing a new subject on the cadence of the previous phrase. In other cases Boismortier adopted the following form: a modulation to the dominant, repeat bars and a return to the tonic. The cases in which he confined himself to a recapitulation were exceptional. The andante of a Buffardin's concerto on the other hand presented a highly evolved version of slow movement form with very obvious bithematicism. His plan was as follows: A (in D major), bridge passage, B (in D major) - repeat bar - A (in D major), new theme (in E minor, the tonic of the concerto), A (in G major), B (in G major). Elavet wrote as an adagio two Gavottes which contributed a distinctly French note to a concerto which in other respects was highly derivative from Vivaldi. The 'Arias' typical of the violin concertos of J. Aubert and Leclair were rarer in wind concertos. The only two examples which may be cited were by Naudot, viz., Op. 11, No. 6, with the term 'affetuoso' at the beginning, a term which he also applied to Op. 17, No. 4, in which two arias (major and minor) were indicated to be played in a ternary pattern: A, B, repetition of A.

In general, composers preferred an alternation of solo and tutti passages whose economy approached that of the allegros. The tutti's function was to introduce and conclude the movement, leaving the soloist to elaborate on his own melody. This was the method adopted by Corrette in his concerto Le Phénix for four 'cellos, violes, or bassoons. If there was a desire for a more extended piece, it was considered sufficient to introduce one or two intermediary tuttis in contrasting keys. Naudot and Leclair opted for a three-pillared tutti structure supporting two solos, the second being more extensive

and highly-wrought than the first.

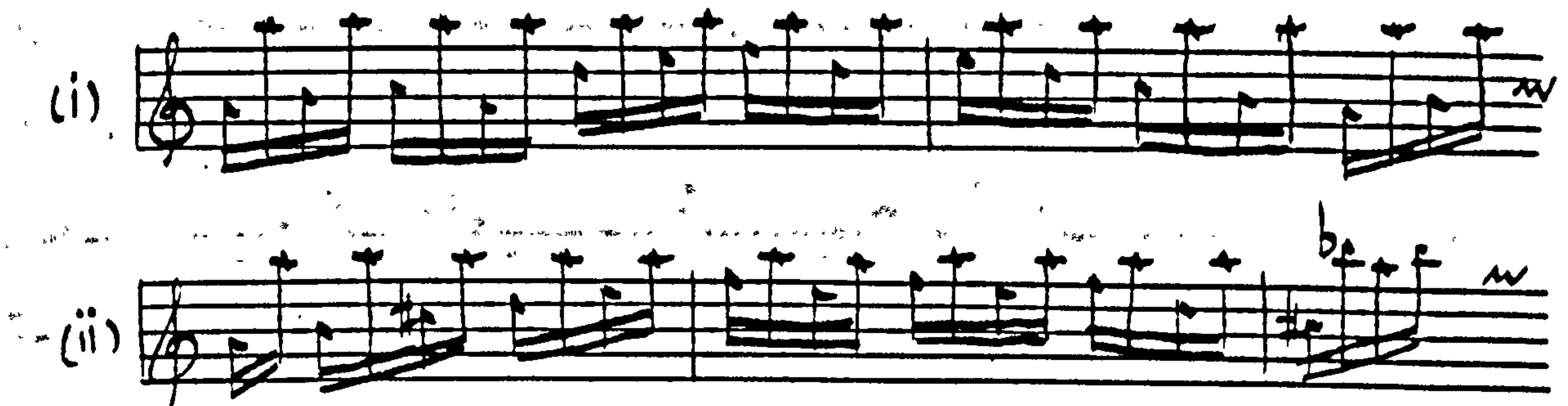
Instrumentalists and their technique

The transverse flute was the premier concerto wind instrument, the one which had the most extensive concerto literature, and the one which attracted such brilliant woodwind performers as Blavet, Buffardin, Naudot and Philibert. Contemporary comments on Michel Blavet (1700-1768) were eulogistic, and his flute-playing talent seems indeed to have been exceptional. Born at Besançon, he practised his father's trade of wood-turner for several years. It was only by chance that a flute came into his possession; he tried to play, and his progress was so rapid and formidable that he soon became France's premier flautist. The Duke of Levis requested Blavet to transfer to Paris, and there he soon attained the position of 'Pupitre de flûte de l'Opéra'. His reputation was so great that his acceptance to play on a social occasion was considered as a mark of favour for his patron. Many contemporaries, including Voltaire, rivalled one another in expressions of admiration for his talents. Marpurg considered him a virtuoso whose modesty was not altered by popularity and as one who always recognised the merits of his rivals. Blavet went on to Prussia with Frederick I. Frederick II was so enamoured of his talent that he offered him a permanent post, but Blavet declined. On his return to Paris, Prince Carignan assured him of a pension and an apartment in his own house. He then became director of music to the Count of Clermont - a post which he held to his death.

On his trip to Paris in 1726, Quantz heard Blavet, Lucas, Naudot, and other flautists who played the one-keyed flute, and

considered Blavet to be the supreme master on the instrument. Blavet held his flute to the left, but never persuaded anyone to imitate his posture.

Blavet particularly favoured passages based on one note forming a pedal point. The following two examples are taken from the first and last movements respectively of Blavet's Flute Concerto in A minor.



Passing through Constantinople, Johann-Jacob Bach, who was engaged as an oboist in the guard of Charles XII, stopped to study the flute under the guidance of Pierre-Gabriel Buffardin (1690-1768) who had settled on the banks of the Bosphorus for a few years before moving to Dresden to take up the position of first flute in the royal orchestra in 1716. In Dresden Quantz was so impressed by the playing of Buffardin that he had lessons from him for four months in 1719. Rapid scales and a florid style of performance were the qualities in Buffardin's playing which Quantz admired. Contemporary sources also commented favourably on the quality of tone he produced and on the precision of his execution. Buffardin carried French traditions into Germany and his influence was important from this point of view.

Quantz (1687-1773) studied flute under Buffardin in 1719 from whom he learned all aspects of the French flute-playing tradition. On his trip to Paris in 1726 Quantz was impressed by the Opéra, but

wrote of the orchestra:

[the orchestra] is poor; the musicians play by ear from memory rather than from scores.

On the other hand, Quantz was amazed by the high standard of the technique of French flautists in general.

The range employed in flute concertos was a little more than two octaves, i.e. from D_4 to E_6 . Buffardin and Naudot extended it to F_6 . Buffardin wrote arpeggios over the whole range of the instrument.



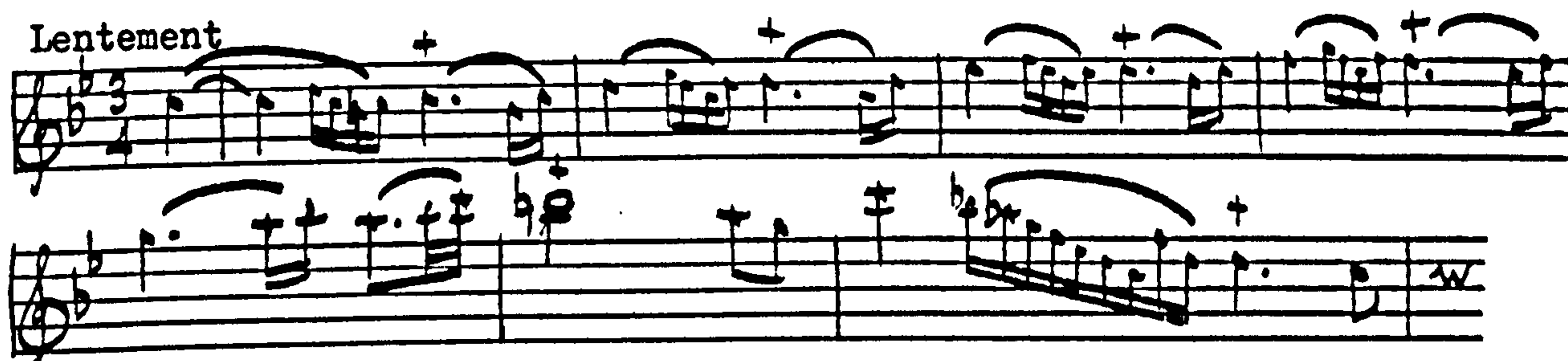
Naudot phrased his music carefully, indicating his intentions to the last detail with judiciously placed slurs.

Leclair and Naudot composed magnificent cadenzas for their adagios, whereas Blavet wrote cadenzas for his allegros. At several points in Naudot's Op. 17 some pedal points occurred which perhaps allowed for some improvised cadenzas.

The oboe was much less favoured as a concerto instrument, and hardly ever appeared at this time except in the role of alternative in works for 'violins, musettes, recorders, flutes, oboes, etc.'. Sometimes Leclair's concertos were written for it as well as for the transverse flute. His concertos present real problems for the modern oboist equipped as he is with his new and improved instrument.

Naudot's Op. 17, despite the fact that it was intended for violins, musettes, etc. is highly adaptable to the oboe, especially in the slow movements which demand a sustained breath control of which the flute is incapable. The following example from the adagio of the

third concerto is developed over a held G in the 'cellos:

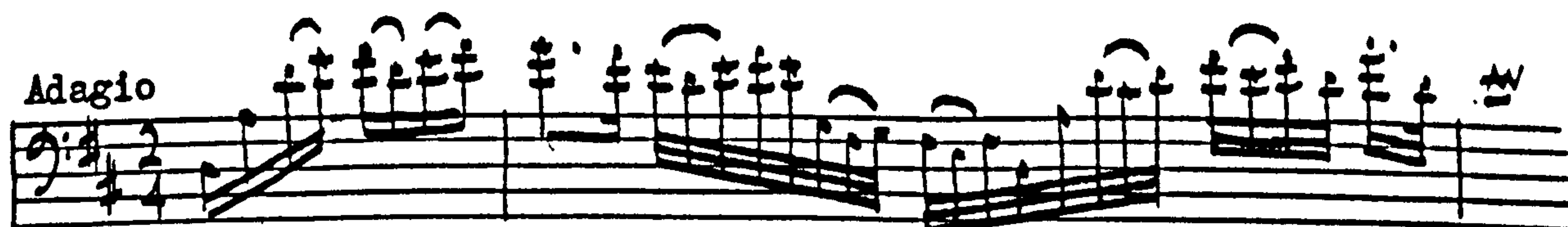


The bassoon had some remarkable soloists in the 18th century.

It was rapidly assimilated into the orchestra along with the violas and 'cellos. In his Concerto in G minor for the orchestra of Dresden (Pincherle 383) Vivaldi wrote long cascades of scales for the bassoon; Rameau confined it in the Overture to Pygmalion to a redoubtable series of repeated notes. It was often given a passage in its high register, and in his Jaloux corrigé, Blavet made it double a fast-moving passage in the violas. It was similarly treated in the concertos by Corrette and Boismortier for 'cellos or violas, or bassoons. It is notable too that Boismortier doubtless knew the technique of the bassoon better than that of the 'cello since he inserted in his Op. 26 the following note:

As I don't play the 'cello very well in order to judge these pieces myself, I have asked Mr. L'Abbé, a well-known virtuoso on the instrument, to examine them, and by his approval I have determined to publish them.

In each case, the solos which he designated expressly for the bassoon were of a difficulty equivalent to the Concerto Op. 26. Corrette did not ask for less in his Le Phénix:



Appendix 1

List of French woodwind makers c. 1700

Berthault (before 1761)

Bizey, Charles (1716-1752)

Chédeville, Esprit-Philippe (1696-c.1760)

Chédeville, Pierre (1694-1725)

Chédeville, Nicolas (1705-c.1783)

Chéron, Nicolas (c.1658-1691)

Coret, or Cornet (n.d.)

Debey (c.1730)

Delerable (n.d.)

Delusse, Deluce, or Lusse (n.d.)

Des Costeaux (c.1692)

Du Buc (c.1692)

Du Mont (c.1692)

Dupuis (c.1692)

Ferry, François (c.1752)

Filidor (c.1692)

Fillibert (c.1692)

Fleury, Benoît (1751-1791)

Froment (c.1692)

Gaillard (c.1750)

Héron (c.1692)

Hotteterre, Jean IV (1648-1732)

Hotteterre, Nicolas I (d.1694)

Hotteterre, Nicolas II (d.1727)

Hotteterre, Jacques le Romain (d.1760/61)

Lambert, Jean Nicolas (1745-1761)

Lavigne, de (n.d.)

Le Breton (c.1692)

Lecler (cq), Jean Nicolas (d.1752)

Le Vacher (c.1636)

Lissieu (c.1672)

Lot, Gilles (c.1752-1772)

Lot, Thomas (c.1740-1785)

Luzy, Lussy, or Luzzi (c.1768)

Mouchere!, Sebastian (c.1724)

Naust (c.1700)

Noblet (c.1750 and later)

Perrin (c.1672)

Ponthus à Maçon (c.1672)

Rippert (c.1700)

Rousselet (c.1692)

Rozet (c.1692)

Scherer, I. (c.1764)

Valois (n.d.)

Villars, Paul (c.1741-1776)

Vincent, Denis (c.1752-1769)

Notes

(1) Langwill's authoritative study on wind instrument makers¹ provides where available biographical details of the above makers, contemporary references to their work, research references, makers' addresses and marks, and present-day locations of extant instruments.

1 Langwill, L.G. An Index of Musical Wind-instrument Makers (Edinburgh, 1971)

(ii) The coincidence of dates in the above list is due to the fact that in some cases the only record of makers' activities is the appearance of their names in trade indices, legal documents, etc.

With the absence of dated instruments, it can only be assumed that makers were active around the dates of publication of such evidence.

These publications and the makers they mentioned include:

(a) Borjon, Charles Traité de la Musotte (Lyon, 1672) pp. 38-39

Borjon mentioned Lissieu, Perrin de Bourg-en-Bresse, and Ponthus à Maçon. Of the Hotteterres he wrote:

The father [Jean IV Hotteterre] was a specialist in making all kinds of wood, ivory, and ebony instruments such as musettes, flutes, flageolets, oboes and crumhorns, all of which he played very well. His sons were no less accomplished as instrument-makers, and they had a complete knowledge and even greater mastery of the musotte in particular.

Of Ponthus à Maçon he wrote:

[He] was one of the finest craftsmen of his period and had a very special talent which I have not noted in any other for accurately voicing musettes and making musette bellows.

(b) Pradel, A. du. Livre commode des addresses (Paris, 1692)

Pradel lists Des Costeaux, Du Buc, Du Mont, Dupuis, Filidor, Fillibert, Froment, Héron, Hotteterre (Jean IV), Hotteterre (Nicolas II), Le Breton, Rousselet, and Rozet as:

masters in the performance and making of wind instruments, flutes, flageolets, oboes, bassoons, musettes, etc.

(c) Briqueville, Eugene de. Les Ventes des instruments au 18e siècle (Paris, 1908). Briqueville mentioned the makers de Lavigne, Luzy, and Valois.

(d) Legal documents dated 1752 relating to the case of Gilles Lot v. five woodwind makers of the Union of Musical Instrument-Makers of Paris included the names of Bizoy, Jacques Lusse, Thomas Lot, Villars, and Vincent as the five makers involved in the litigation. (See p. 12 for information about the case)

(e) The text of the advertisement which appeared in the Mercure de France (Paris, 1749) concerning Bizey's oboes ran as follows:

Bizey, of rue Dauphine, inventor of several wind instruments, wishes it to be known that he is still working successfully perfecting inventions. He invented a short time ago oboes which descend to G re sol [G₂] like the violin, and others an octave lower than the ordinary oboe which very closely imitate the cor de chasse.²

(f) Gilles Lot in the opinion of one writer surpassed in inventive ability the other five makers at work in Paris in 1752 as the following note from L'Avant-Courer (Paris, ^{11th May} 1772) indicates.

Le sieur G. Lot, maker of wind instruments, resident in the cour des moines de l'Abbaye Saint-Germain next to the fountain, has just produced a newly-invented musical instrument, to be known as a 'basse-tube' or 'basse de clarinette'. There has not previously been an instrument with such an extended compass. It is capable of producing three and a half octaves; it goes as low as the bassoon and as high as the flute ...

This description of a bass clarinet antedates by 21 years the date of its supposed invention by Grenser in Dresden in 1793. The invention of the bass clarinet should now be regarded as of French origin.

(g) Sauveur, Mémoire de l'Académie des Sciences (Paris, 1701)

p. 335, mentioned Rippert in the heading to his chart of the range of woodwind instruments when he wrote that the chart was:

according to the practice of Ripert and Hautetaire the younger, the most skilled makers in Paris.

(h) The effects of the instrument redesignings which French makers brought about were described by Michel de la Barre in a letter which he wrote in 1740.

His [Lully's] elevation meant the downfall of all the old instruments except the oboe, thanks to Philidor and Hotteterre, who spoiled great quantities of wood and played great quantities of music until they finally succeeded in making the instrument fit for concert use. Violins, recorders, theorbés, and viols took the place of the musettes which were left to the shepherds to play, since the transverse flute did not appear until later.

1 Marx, Joseph. 'The tone of the Baroque oboe' Galpin Society Journal Volume IV, p. 12

2 Quoted in Pierre, C. Les Facteurs (Paris, 1893) p. 99.

(iii) The identification of the makers of French woodwind instruments made during the period 1690-1750 poses many problems. Typical is the case of Hotteterre instruments. Instruments stamped with the name 'Hotteterre' surmounted with the letter 'N', and that in turn surmounted with a six-pointed star may be attributed to Nicolas Hotteterre, to his eldest son, or to his nephew. This trademark was stamped on a recorder in the possession of M. Petit from Blois which was similar to specimens owned by Thoinan and the Museum of the Paris Conservatoire.¹ The name on the Paris Conservatoire instrument is too worn to be readable, but Thoinan's was stamped on the three joints with the mark 'Hauterre' and a small fleur-de-lis below. The bolí section had a fourth mark, viz., 'Hotteterre' (again with a fleur-de-lis below). A comparison of the signature of Louis Hotteterre (third son of Louis) on his marriage contract to Marie Francard with that shown on Thoinan's recorder proves that the instrument was made by the last of the three craftsmen mentioned above.²

In 1696 Madame Martin Hotteterre sold a house in Evreux with the sign of 'The Black Anchor'. This house, which had been bought by Jean Hotteterre (Martin's father) provided the name for the trademark on a number of Hotteterre instruments. It is doubtful whether in fact Jacques Hotteterre le Romain made many instruments, but one specimen was accredited to him in the collection of M. Cesar Snoeck of Ghent in 1912. The instrument displayed a black anchor as trademark, and this may have passed from Jean I Hotteterre to his son (Jean), and then to his grandson (Jacques le Romain). The only piece

1 Thoinan, E. Les Hotteterre (Paris, 1894) p. 21

2 Extract from the État civil de La Couture (La Couture, 1673)

of contemporary evidence about Jacques' instrument-making comes from a description of a visit which Uffenbach made to the French master in 1715.

[He] showed me many beautiful flutes which he himself makes.¹

The mark 'Hotteterre' surmounted by the letter 'L' probably belonged to Louis Hotteterre (second son of Nicolas).²

1 Preussner, E. Die Musikalischen Reisen des Herrn v. Uffenbach Reprint, Bärenreiter, 1949, p. 128.

2 Jenkins, D. Les Hotteterre, a critical study (Edinburgh, 1967) p. 35 contains a collection of the signatures and marks of the Hotteterre family of makers.

Appendix 2

<u>Instruments</u>	<u>Numbers of makers in the</u>		
	16th cent.	17th cent.	18th cent.
Organs	7*	38	60
Clavecins/harpsichords	-*	7	49
Pianos	-	-	21
Serinettes (bird organs)	-	-	4
Harps	-	-*	16
Woodwind instruments	-	-	29

Instrument makers active in France, based on figures from Pierre, C.

Les Facteurs (Paris, 1893) pp. 153-4.

- Note (i) In quoting from this 1893 source it must be made clear that only the relative proportions of the numbers are valid. At *, many more makers were active than the numbers indicated.
- (ii) The 18th cent. figures are high, but production methods then were slow and larger numbers than in modern times had to be employed to produce an equivalent output. In general, master instrument makers employed few workers; they were often self-employed and thus under no management pressure to increase production figures. They often combined the practice of music (or some other profession) with their trade. The tradition of instrument maker/performer was largely preserved until the end of the 18th cent.; organ builders and woodwind instrument makers especially played the instruments they made. Delusse and the Hotteterres were first-class woodwind virtuosi.

Appendix 3

A summary of information in the tutors.

(1) Freillon-Poncein La Véritable Manière d'Apprendre à Jouer ... du Hautbois (Paris, 1700) (35)

1. Principles of music.
2. For the oboe. [Translations of sections on the oboe by Halfpenny¹]
3. For the recorder.
4. For the flageolet.
5. How you must give tongue strokes in all kinds of metres.
[Lasocki referred to this section in his discussion on tongueing²]
6. [Various ornaments. Marvin mentioned some features of these instructions relating to articulation and ornamentation³]
7. For metre.
8. For Preludes. Sets of Preludes in seven major and minor keys for both oboe and recorder.
9. [Trill fingerings for oboe, recorder and flageolet]
10. For the voice.
11. For learning to compose all kinds of pieces according to tempo and metre.
12. For learning to add a part to a given subject, whether a second descant or a bass.
13. For the bass.

1 Halfpenny, E. 'The French Hautboy: A Technical Survey' Galpin Society Journal Vol. VI (London, 1953) p. 23, and Vol. VIII (London, 1955) p. 50.

2 Lasocki, D. 'The Tongueing Syllables of the French Baroque' The American Recorder Vol. VIII No. 3 (New York, 1967) p. 81.

3 Marvin, R. 'Playing French Late Baroque Music on the Recorder' The American Recorder Vol. IX No. 2 (New York, 1968) p. 39.

(ii) Hotteterre, Jacques. Principes de la Flûte (Paris, 1707) (42)

Treatise on the flute.

1. On the situation of the body and the position of the hands.
2. On the embouchure.
3. First explanation of the first plate (naturals)
4. First explanation of the second plate (tremblements on naturals)
5. Second explanation of the first plate (sharps and flats)
6. Second explanation of the second plate (tremblements on sharps and flats)
7. Remarks on some semitones, and on some tremblements.
8. On the tongue strokes, ports-de-voix, accents and double cadences on the flute and other instruments.
9. On the flattements or minor tremblements, and the battements.

Treatise on the recorder.

1. On the situation of the recorder and the position of the hands.
- [Fundamentals briefly explained by Hedrick.¹]

2. Explanation of the first plate (all the notes)
3. Explanation of the tremblements.
4. On the flattements and battements.

Re articulation the reader was referred to the chapter on tonguing in the flute section.

Method for learning to play the oboe.

Explanation of the way of holding the oboe.

Explanation of the embouchure.

Explanation of the naturals.

Explanation of the sharps and flats.

1. Hedrick, P. J. 'Hotteterre on the Recorder' The American Recorder Vol. VII No. 2 (New York, 1966) p. 4.

(iii) Hotteterre, Jacques. L'Art de Préluder (Paris, 1719) (52)

1. The degrees of the scale.
 2. Elements of the Prelude, with some variations in the key of G.
 3. Preludes in all keys, different tempos and different moods for flute, recorder, oboe etc.
 4. Exercises in all keys.
 5. Preludes for the recorder.
 6. Exercises for the recorder.
 7. On the leading note, and rules of modulation which must be observed in the Prelude.
 8. Explanation of trills and their distribution in major scales.
 9. How to tell which key a piece is written in, with an explanation of minor and major thirds.
 10. Transposition.
 11. Different time signatures, with explanation about (in)equality.
- Musical example.

Prelude in D major.

(iv) Corrette, Michel. Méthode de la Flûte (Paris, c. 1735) (68)

1. Principles of music.
2. Musical examples of Brunettes for one and two parts.
3. Seven fingering charts.

(v) Rotteterre, Jacques. Méthode pour la Musette (Paris, 1737) (70)

1. On the parts of the musette.
 2. Positioning of the bellows.
 3. Fingering for the natural sounds of the large chanter.
 4. Air with demonstration of bellows technique.
 5. Demonstration of the scale of the small chanter.
 6. Explanation of sharps and flats, and trills on the large chanter.
 7. Explanation of note values.
 8. Explanation of trill on G_5' , B_4' and F_5' sharp.
 9. Practice of c on the small chanter.
 10. Explanation of trill on a.
 11. Practice of scale of C minor.
 12. Practice of G major scale.
 13. Practice of G minor scale.
 14. Explanation of Ports-de-voix, flattements and battements.
 15. Tuning of the drone.
 16. Observations on the maintenance of the musette.
- Musical examples.

Book List

Primary and secondary sources are included, but generalised woodwind surveys which have often been superceded have not. Details of the Archive material used have been indicated in the relevant chapters.

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Volume IX, Number 1 (New York, 1968)
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